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ABSTRACT

An overview of theory, assessment design, and programming in career development projects for special education students is presented, and 39 assessment instruments are reviewed. Components of career-vocational program development are identified, and steps in the developmental flow for assessment, evaluation, and curriculum design are listed. A model for career development is also presented, and goals and curricular activities are identified for junior and senior high grades. In addition, personal-social, occupational, and daily living factors that should be included in an assessment design and evaluation are specified, and four assessment techniques frequently used in career-vocational assessment are described. Information is presented on developing assessment instruments and work samples, interview strategies, and selecting and adapting assessment instruments and procedures. The information on 39 assessment instruments includes the following: authors, vendor, type, items, administration, content, scoring, purpose, and special needs considerations. Appended materials include definitions of approximately 115 career-vocational terms and a list of nine publications. (SEW)

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Assessing and Evaluating the Career Development of Special Education Students

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If you want to ride a horse, dance a jig, climb a mountain, build a boat, write a novel, study history, think intelligently, become educated, a certain amount of instruction in a class in the subject will be useful. . .After that you will need to get a horse, start dancing, climbing, building, writing, thinking, and educating on your own. Otherwise, you will not have learned what you need to know, that is, how in fact to do the thing you have set out to learn to do. To learn to do something, it is necessary to practice it.

Harold Taylor (1976)

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TABLE OF CONTENTS

I. Introduction 1

II. An Overview of Career-Vocational Theory 8

III. Career and Vocational Education 9

IV. Assessment Design 18

V. A Compendium of Assessment Instruments 26

VI. Appendices 66

A. Career-Vocational Terminology 66

B. Resources Used for this Document 76

Introduction

As a result of the White House Conference Report on Employment of the Handicapped and the concerted effort of other advocates for disabled persons, a new direction in career and vocational education programming has evolved. Federal and state legislation passed in the 1970s mandated programs and services that have significantly changed career-vocational preparation options available to handicapped students in public schools and postsecondary educational institutions.

Historically, as evidenced in the White House Conference Report, vast numbers of handicapped students were passing through school programs without the career and vocational preparation needed to enable them to enter the world of work successfully as adults. Some students were excluded from secondary or postsecondary vocational training programs because instructors or counselors underestimated a student's potential or doubted that the student could function successfully in existing programs. Many career options attainable only through college or university education were not accessible for similar reasons.

The situation is changing. During the 1980s, many local education agencies, area education agencies, parents, and community resource persons are evaluating career-vocational education options for handicapped students. Many school districts are making concerted efforts to provide sequential career-vocational activities that begin in the early grades and progress through high school, including more diverse program options that incorporate more experiental opportunities in off-campus activities. These changes are reducing existing barriers, providing for a more realistic transfer of learning, and facilitating better transition from education programs to postsecondary situations (i.e., work, education, or training).

Public Law 94-142 (the Education for All Handicapped Children Act) mandated that schools develop an individualized education program for each identified handicapped student. The program must be based on assessment of the student's current level of performance in all areas of proposed instruction. One outgrowth of this law is that some local education agencies have identified the career-vocational skills students need, and have developed curricula to use as a basis for instructional planning. Such is not the case in many of Iowa's local districts. Consequently, teachers and counselors may encounter difficulty determining what assessment strategies to use, what program goals to set, and what types of career-vocational experiences to provide. Resolving this dilemma will require that local districts identify the career-vocational education options available to students, the skills students need to learn, and the curricular activities which will help students acquire these skills.

Figure 1 shows one view of the components of career-vocational program development. Program development is an ongoing process which enables teachers and others to use existing curriculum products and to modify and use these products to provide a more cohesive and comprehensive program at each grade level or career education phase.

This document was developed for the purpose of providing an overview of theory, assessment design, and programming. A compendium of assessment instruments is also provided in an effort to assist you in developing an assessment strategy.

Figure 1.

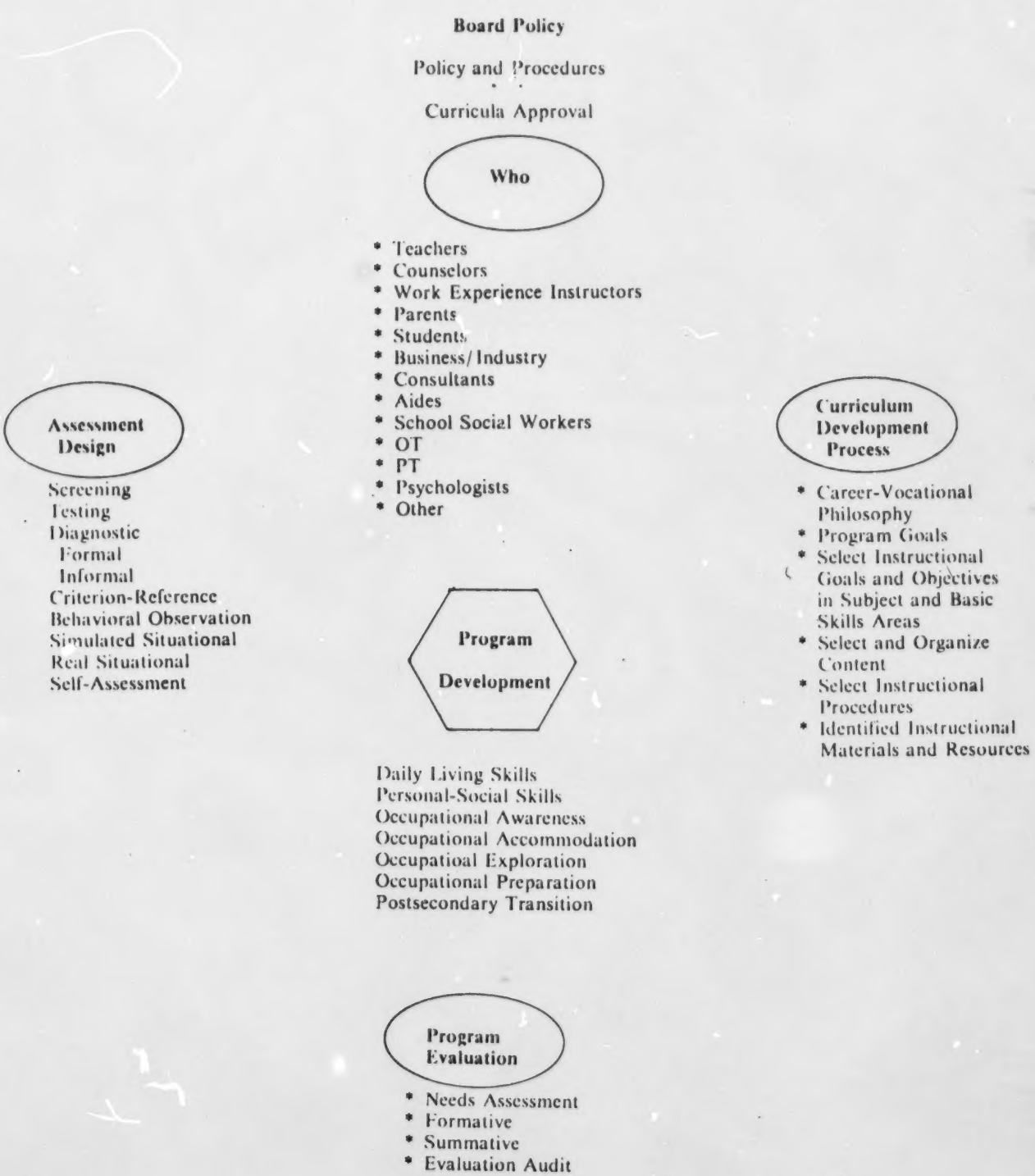
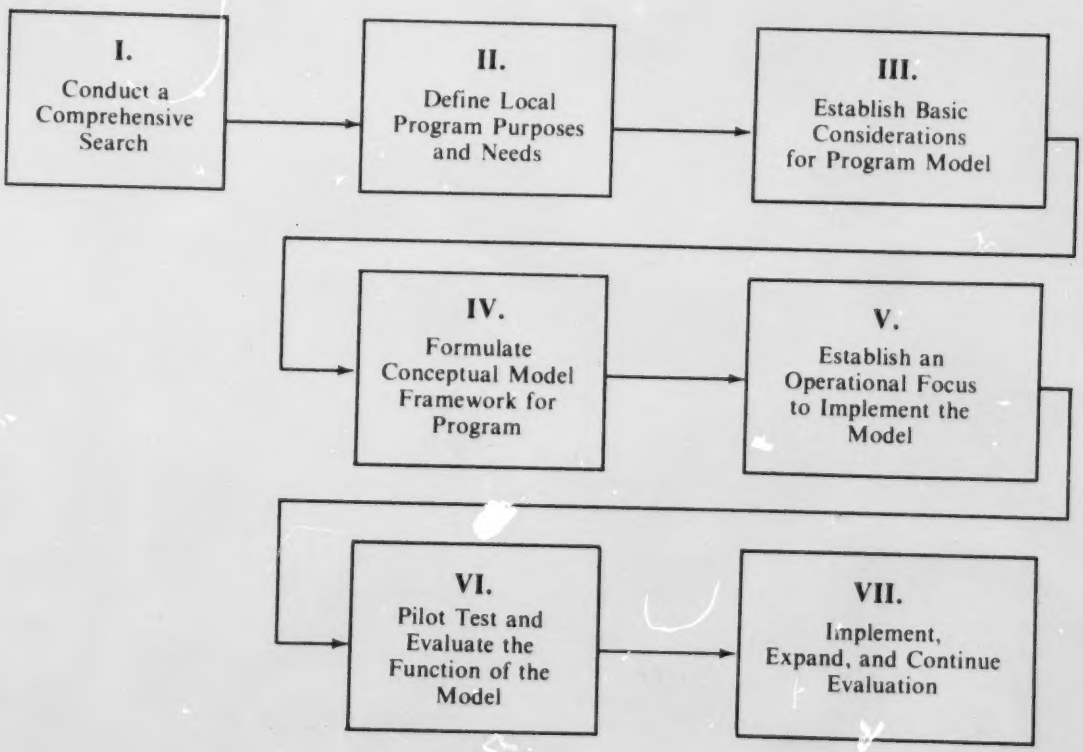

Board Policy
Policy and Procedures
Curricula Approval
Who
* Teachers
* Counselors
* Work Experience Instructors
* Parents
* Students
* Business/Industry
* Consultants
* Aides
* School Social Workers
* OT
* PT
* Psychologists
* Other
Assessment Design
Screening
Testing
Diagnostic
Formal
Informal
Criterion-Reference
Behavioral Observation
Simulated Situational
Real Situational
Self-Assessment
Curriculum Development Process
* Career-Vocational Philosophy
* Program Goals
* Select Instructional Goals and Objectives in Subject and Basic Skills Areas
* Select and Organize Content
* Select Instructional Procedures
* Identified Instructional Materials and Resources
Program Development
Daily Living Skills
Personal-Social Skills
Occupational Awareness
Occupational Accommodation
Occupatioal Exploration
Occupational Preparation
Postsecondary Transition
Program Evaluation
* Needs Assessment
* Formative
* Summative
* Evaluation Audit

Figure 2

Planning Ahead - Assessment, Evaluation, and Curriculum Design

Stodden (1980) indicated that a developmental decision-making process for program planning consists of the following events.

Developmental Flow for Assessment, Evaluation, and Curriculum Design



Step 1: Examples of the kinds of information that might be gathered in a comprehensive search are:

- Administrative structures and key persons within the schools and agencies interfacing the assessment process
- Student service delivery models, groupings, and existing program and curriculum structures
- Existing programmatic and material resources
- General school and agency logistics
- Present structures for the evaluation and placement of handicapped students
- Human and materials resources of parents and other relevant persons
- Current needs and purposes for all agencies and schools involved with the assessment and evaluation process

Step 2: Defining the purpose of local curriculum offerings is important and should clarify a specific discipline's frame of reference. It also will assist educators in addressing the needs of the handicapped student and the barriers they face in existing curriculum offerings. The following should be considered:

- Need for developmental information by special education teachers and counselors concerned with preparing handicapped students for indepth career exploration and/or vocational training
- Need for vocational instructors to know what program options and specific accommodations are necessary for successful participation "specially designed" vocational education
- Need for rehabilitation counselors and other resource persons to know what behaviors and skills handicapped students will possess when they leave the secondary educational setting
- Need for specific (valid and reliable) career and vocational information by IEP team decision makers to assist in appropriate programming decisions

Step 3: The instructional (LEA) and support (AEA) staff will need to formulate a framework which articulates how the career development of each student will be assessed and evaluated as each student progresses through the program. The interdisciplinary team will need to consider the following (Stodden and Ianacone, 1981):

- Career and vocational assessment/evaluation must be an integrated part of the total delivery of career/vocational services to the handicapped student. The collection of valid information should reflect preassessment readiness needs of the student and provide developmental growth information.
- Career and vocational assessment is a student-centered, developmental growth process consisting of experiences to increase one's awareness, exploration, and understanding, rather than a strict predictive procedure providing isolated ability data.
- Key validity and efficiency factors contributing to the structure of an assessment model are the assessed employment needs of the local community and the applicable skills of the handicapped student.
- Career and vocational assessment/evaluation models must address the legal considerations of Public Law 94-142, Public Law 94-482, and Sections 503 and 504 of the Rehabilitation Act of 1973.
- Many standardized assessment instruments and vocational evaluation systems measure one trial learning, thus magnifying the handicapped student's limitations on the task.
- There are key situational factors specific to work roles and these factors can be critical determiners of the interest and performance of handicapped students.
- Career and vocational assessment/evaluation programs must produce a wide variety of demonstratively useful information which can be accessed and used by several disciplines and the handicapped student.
- Significant contributory factors may influence a handicapped individual's participation and performance on an assessment task. Factors, such as learning style, physical or sensory limitations, self-concept, reinforcer system, and limited awareness of new situations may influence the data collection process.

Step 4: The local district personnel and support staff (AEA) will then need to address curriculum development (Figure 1). Since students who require special education services are enrolled in regular and "specially designed" curricula, both delivery systems must be addressed. How will the career education concepts be addressed at each level or grade of instruction? Since career decision making is developmental, how will the curriculum and assessment/evaluation strategy enable the student to:

- Increase their awareness and understanding of interactions between self and the work environment at a general occupational cluster level
- Move toward finer level decisions regarding participation on specific tasks that yield in-depth situation information for further decision making
- Increase career exploration and understanding of the work world and work values
- Be an intricate part of the decision-making process regading their future and their responsibilities as an individual
- Enroll in vocational training options that will better prepare them to access the job market or postsecondary education/training institutions assertively and successfully.

Step 5: Program implementation depends on the many variables that exist within the community and school environments such as resources available, program structures, and functioning levels of students. Program developers must consider all operational variables when implementing and developing programs. The following are some of the variables:

- What is the time frame needed for various career and vocational assessment activities?
- What kind of setting is needed for assessment and evaluation?
- Who is/are the appropriate person(s) to assess and evaluate the student's career development?
- How will the information be collected?
- What information will be collected?
- How will the information be used?

Step 6: Field testing various assessment and evaluation strategies is helpful. The following should be considered:

- Assessment situations (series of analyzed tasks) can be identified and analyzed within curriculum units and work roles.
- Occupational characteristics can be factored from a series of educational and work tasks.
- Classroom instructors and other relevant persons can direct an analyzed task without distorting the involved occupational factors.
- Classroom instructors or other relevant persons can identify occupational characteristics through critical observation of student performance on a task.
- Student performance information on a structured assessment task will correlate with other testing measures and the individualized education profile.

Assessment and evaluation instruments should be developed in an effort to delete subjectivity as much as possible and provide validity to what is being assessed or evaluated.

Figure 3

Expanding the assessment and evaluation design will eventually lead a local district into focusing their efforts developmentally as depicted below:

Structuring of Assessment Situations Which Will Developmentally Yield Information About the Student in Relation to the World of Work

I	II	III
Initial Focus	**Secondary Focus**	**Third Focus**
Curriculum areas with the student's normal delivery of educational services	Work roles and situations that make up the normal operation of educational facility	Work roles and situations within the local community or within other communities

Developmental Collection of Information

English	Business Services	Community needs as determined through a market analysis
Math	Maintenance	
Social Studies	Food Services	
Art	Human Services	
Music	Building Repair	
Industrial Arts	Vocational Training Programs	
Physical Education	Community Programs	
Extracurricular	Simulated Work Settings	

Outcomes

1. The structuring of a developmental series of events (steps for the origination and planning of a career and vocational assessment/evaluation design) will yield the following beneficial outcomes:

   - The career and vocational assessment/evaluation process is planned, developed, and monitored by an interdisciplinary team of individuals interfacing the handicapped student's career/vocational development process (academic teachers, vocational instructors, counselors, administrators/program planners, rehabilitation counselors, special educators, parents, employers, and relevant others).

   - The key service providers are channeled into the planning process, availing their expertise and resources to the data collection and evaluation process.

   - The basis for interdisciplinary accountability is structured throughout the service delivery process by total participation of discipline members (the determination of critical readiness and prevocational skills for preparation in the earlier grades, facilitation of planning for vocational skill program needs, information for the coordination of vocational rehabiitation roles in skill training, job placement, and follow-up).

2. Through the use of the operational focus of infusing the career and vocational assessment process within existing programs and services, some beneficial outcomes are apparent:

   - The program requires minimal add-on expenditures for new facilities, equipment, space, time schedules, personnel, and transportation services.

   - The assessment process can be tailored to fit local needs and resources (account for differences between rural and urban settings).

   - Due to total involvement by persons interfacing the assessment process, commitment (length of existence and quality of program) to the developed process should be much greater.

   - The infusion of career and vocational variables into educational curriculum areas should assist academic teachers and others to implement the principles of career education. The consistent collection of the data for students should serve as a feedback vehicle, increasing educators' awareness of the needs of vocational trainers and the world of work. Such awareness will facilitate handicapped students toward improved readiness skills and behaviors increasing successful participation in vocational skill training programs in school or within the community.

3. The collection of career and vocational assessment information, over several developmental situations, will provide longitudinal data to assist a process of formulating valid decisions for:

   - Those persons planning appropriate skill training options

   - Those persons planning for material and method accommodation within student receiving programs

   - Those individuals teaching readiness and prevocational skills and behaviors prerequisite to assessment and programming

   - Those service providers responsible for related services such as employment placement and follow-up

   - The handicapped student (self-awareness, exploration, understanding, and decision making)

An Overview of Career-Vocational Theory

The *Models for Career Education in Iowa* series basically approaches the career education developmental process with an eclectic theoretical viewpoint. For the most part, career-vocational theorists fall into two general areas—individuals who base vocational theory on psychological needs arranged in hierarchial order from "lower order" to "higher order" needs (Hoppick, Holland, Rowe, and Maslow), and theorists (Ginzberg, Super, Tiedeman, and O'Hara) who support a self-concept and developmental approach which suggests that the perception a person holds of self and the desire to maintain and enhance a favorable self-concept are primary factors in human behavior. These theorists believe that each person engages in activities which support a positive view of self and attempts to avoid situations that either make the individual feel insecure or threatened.

Tiedeman and O'Hara also suggest that career development is a process of organizing an identification with work through interaction between each individual's personality and society. They consider personality development a process of individual differentiation and integration. Differentiation focuses on the ways in which the person uniquely expresses his/her individuality—in other words, how he/she is different from other individuals. Integration refers to the ways in which the individual adjusts to others as an acceptable part of society. As each person develops an ego identity three factors interact: the individual's biological constitution, his/her psychological make-up, and the society or subculture in which he/she lives.

Lee E. Issacson in *Career Information and Counseling and Teaching* generalizes and summarizes several points he believes both groups of theorists basically agree on:

- The career development process is an **ongoing, lifelong** aspect of human existence.
- Since the process is **essentially developmental** in nature, it is generally predictable but also can be modified by changing circumstances even to the point of being reversible as the individual attempts to optimize benefits and satisfaction derived from the worker-job relationship.
- **Individuals have differing patterns** of ability, interests, and personality as a result of the interaction of genetic inheritance and environmental factors. These characteristics are influenced by parental attitudes and behaviors, by the impact of other role models, and by the experiences that make up the life of the individual.
- **Occupations also have differing patterns** of characteristics required or expected of successful workers. In most situations, some variation is possible; a "band concept" identifies the tolerable limits for most successful participants.
- The extent to which a person develops and applies his/her unique pattern of individual characteristics depends on **attitudes, motivations, and values**. These can be approached either from the basis of psychological needs or the development of self-concepts. They impinge on the individual's perception of reality (now) and possible reality (future), and probably determine the extent to which the individual responds to existing opportunity.
- The individual learns about jobs and their relationship to the individual specifically, and to society generally, **from many sources**, including the family, peer groups, community, school, media, and experiences of everyday life. The attitudes towards and knowledge of work developed in the growth, exploration, and crystalization of childhood and adolescence will have lasting influence on the worker-job relationship of the adult years.
- The optimization a person seeks in worker-job relationships is a product of interation between the individual (including abilities, interests, personality, values, and so forth) and his/her situation including economic condition, opportunity, and chance factors of either positive or negative value.
- The degree of satisfaction experienced by a worker (either the extent to which his/her self-concept is implemented or psychological needs are met) is largely determined by the extent to which the potential for optimization is apparent to the individual and is viewed as agreeable and acceptable.

These basic tenets should be considered by educators when developing new and more diverse program strategies for disabled students enrolled in special education programs. It is hoped that by considering these tenets, special and vocational educators will be able to intervene when necessary with diagnostic strategies that will enable disabled students to progress along a normal career development route and avoid situations that could divert students into an unrealistic progression of activities that may slow or deter their successful career development.

Career and Vocational Education

With the passage of P.L. 94-142, the career development of special education students has been the focus of much discussion and activity. Traditionally, secondary special education students have been involved in work-study programs; however, postsecondary follow-up studies show that disabled persons continue to evidence less schooling and get fewer employment opportunities and less pay than people without handicaps (Taggert and Levitan, 1977; Heartland AEA 11; Keystone AEA 1; AEA 7)

New and better strategies must be initiated in school programs to enable disabled students to have more equitable opportunities to compete effectively in postsecondary education or work situations.

Career education must begin at an early age. This can be accomplished by infusing career concepts into existing curriculum strategies. Examples of infusion might be:

Homemaking Skills: Disabled students are prepared to wash and iron; make beds; sew; manage a budget; plan and cook meals; and clean and vacuum. While these skills are important to the person maintaining an apartment or home, they can also be saleable qualities in the job market Examples are:

- Using pressing, laundering, and sewing skills in a dry cleaning establishment or laundry
- Using cleaning, vacuuming, linen changing, laundering, budgeting, record keeping in the motel or hotel industry
- Using cleaning and linen changing skills preparing to become a nurses aide

English or Communication Skills: Being able to write and record is required in many occupations, but some students seldom have opportunities to use these skills in practical career-oriented applications such as:

- Taking field trips to business and industry—recording how to apply for a job, how many different occupations are at a site, what skills are required on specific jobs, what level of education is needed for each specific job, what safety factors must be considered, etc.
- Applying for jobs—filling out various application forms and practicing interviewing skills
- Writing and updating their own resume
- Keeping a diary of their work experiences—describing the things they liked and disliked or had difficulty doing.

Basically, the **infusion of career education** is a process of structured intervention aimed at helping students take advantage of the educational, training, and occupational opportunities that are available in the school and community.

While the *Models for Career Education in Iowa* were not specifically written for special education programs, the goals and objectives can provide guidance to local district personnel in developing more specifically designed curriculum for special students. The Iowa model includes two concepts which parallel most special education curricula:

1. Concept of self
2. Concept of world of work

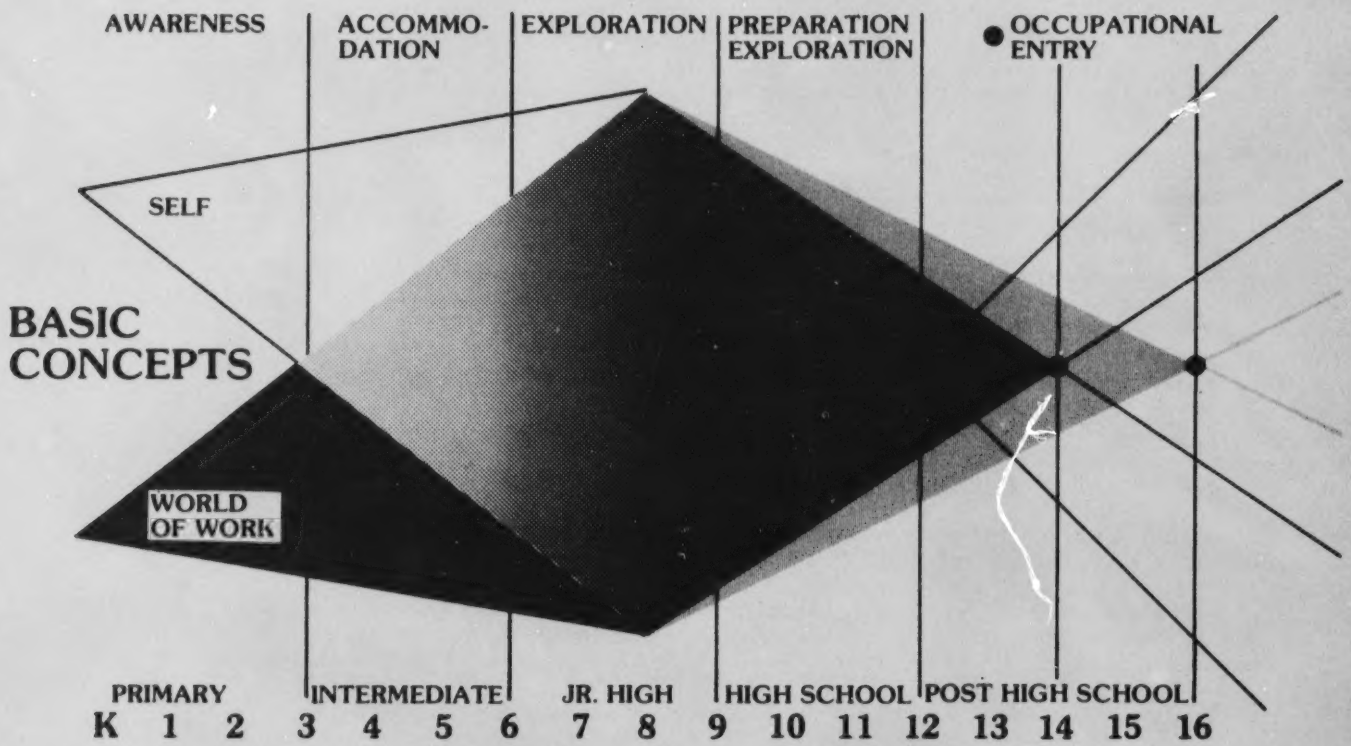
These two concepts need to be addressed throughout the curriculum from the awareness phase through the preparation phase. Figure 4 graphically depicts Iowa's model for career development.

This document addresses two career phases: exploration (approximately seventh, eighth, and ninth graders) and exploration and preparation (approximately tenth, eleventh, and twelfth graders). The following are suggestions that curriculum development persons need to consider when developing their local district curriculum.

Figure 4

MODEL FOR CAREER DEVELOPMENT

CAREER DEVELOPMENT PHASES



Developed as part of Career Education Project, Iowa State University

Junior High

During the seventh, eighth, and ninth grades, the curriculum should emphasize getting the student ready to enter the community more often and with less supervision. The following are some suggested goals for junior high programs.

Goal 1: Students will be provided course work either in regular or in "specially designed" programs that assure special education students curriculum instruction which meets Iowa's Educational Minimum Standards.

Goal 2: Students will be provided individual and group activities that promote and support career development in three domains:

- Personal-Social
- Daily Living
- Occupational Guidance and Preparation

Goal 3: Each grade level will establish initial and ongoing assessment strategies that assess each student's career development as a result of specific programming either in regular education curricula or in "specially designed" curricula.

Goal 4: Students will be provided curricular activities that will better prepare them to enter the community effectively and independently.

Goal 5: Students will have opportunities to interact with community resource persons for the purpose of developing:

- An understanding of the variety of occupations that exist in the community
- A better understanding of the worker traits that exist in a variety of occupations
- An awareness of the skills and knowledge necessary in becoming "employable"
- Problem-solving skills
- An appreciation for volunteer work and community responsibility
- Consumer awareness and consumer experience
- An understanding of the services available in the community for its citizenry and citizen responsibility
- Their own self-respect and personal worth
- Self-confidence and responsible behavior

Goal 6: Students will be provided individual experiences that enable them to identify their career interests, aptitudes, and limitations that will need to be addressed as they pursue more intensive career-vocational exploration and training.

The following schema provides an outline of some suggested on-campus and off-campus activities for junior high and early high school students:

7th, 8th & 9th Grades Curricular Areas (On-Off Campus)

A. *The following areas of instruction are identified in Iowa's minimum curriculum requirements and standards for approved schools.*

(Chapter 257.25(4)) If the regular instructional areas are inappropriate, substitution courses or alternative curriculum should be developed for disabled students (Chapter 257.35(8)) and approved by the local district board.

1. Art
2. English-Language Arts which shall include reading, spelling, grammar, oral and written composition, and may include other communication subjects
3. Health and Physical Education, including the effects of alcohol, tobacco, drugs, and poisons on the human body; the characteristics of communicable diseases, including venereal disease; and current crucial health issues

4. Mathematics

5. Music

6. Science, including conservation of natural resources, and environmental awareness

7. Social studies, cultures of other peoples and nations, and American citizenship

B. The following are other suggested curricular activities.

1. Individual and group activities which enable students to better understand their individual:

   a. Value system

   b. Personal career interests

   c. Personal and social attributes

   d. Self-concept

   e. Disability and how to minimize its effect in their personal and career development

2. Work samples (simulated exploration), used to enable students to experience hands-on activities in several career clusters (i.e., the COATS, Project Discovery, VALPAR, or your own developed work samples)

3. The utilization of the AWARE and CISI assessment processes developed by the Iowa Department of Public Instruction

4. Other activities which promote a better understanding of the variety of occupations that exist within the fifteen USOE clusters

5. The utilization of community resource persons to familiarize students with various occupations available in the community or extended community; the educational and training needs and the various occupations or jobs available

6. Community Mobility

   a. Traffic rules and safety practices

   b. The use of various means of transportation

   c. Driving a car, motorcycle, or other vehicles

   d. Use of maps and signs

7. Caring for Personal Needs

   a. Appropriate dress and care of clothing

   b. Proper grooming and hygiene

   c. Physical fitness, nutrition, and weight control

   d. Common illness (prevention and treatment)

8. Recreation and Leisure

   a. Participation in individual and group activities

   b. Identification of community resources

   c. Recreation values

9. Civic Activities
    a. Local laws and government
    b. Citizenship rights and responsibilities
    c. Socially responsible behavior
    d. Appropriate public behavior
    e. Respect for other persons' property
    f. Authority
    g. Personal community responsibility
    h. Ability to seek assistance when needed
10. Achieving Self-Awareness
    a. Interests and abilities in all areas
    b. Emotional needs
    c. Physical self
11. Self-confidence
    a. Developing self-expression
    b. Accepting praise and criticism
12. Becoming Independent
    a. Being organized
    b. Setting goals
    c. Looking at alternatives
    d. Anticipating consequences
    e. Asking for information and advice
    f. Making decisions
13. Communicating with Others
    a. Communicating so others understand
    b. Recognizing emergency situations
    c. Reading
    d. Writing
    e. Using and understanding body language
    f. Using communication systems (e.g., telephone, television, newspaper, language boards, and other alternative systems)
14. Knowing and Exploring Occupational Possibilities
    a. Searching for a job and resource agencies

b. Applying for a job

c. Interviewing for a job

d. Finding out about job demands (education, training, skill, hours)

e. Developing acceptable work behaviors

f. Locating possible jobs

g. Making contacts

C. *The following are career curriculum activities for the junior high students which generally occur off campus. Please refer to Wage and Hour Publication 1330 and 1232 for standards regulating student placement for this age student.*

1. Field trips
2. Career fairs
3. Volunteer work
4. Community mobility and access activities
5. Involvement with persons who enjoy and benefit from avocations
6. Career days in the community with a mentor
7. After school jobs (pay-nonpay)
8. Volunteer work with community organizations
9. Jobs at home or for neighbors
10. Participation in clubs or organizations

9th Grade Curriculum Activities (On-Off Campus)

A. *The following courses are identified in Iowa's minimum curriculum requirements and standards for approved schools. Chapter 257.25 (6a though 6j, 7) Grades nine, ten, eleven, and twelve.*

1. Driver's Education
2. English-Language Arts (four units)
3. Fine Arts Units or partial units in the fine arts shall be taught which may include art, music, and dramatics.
4. Foreign Language (two units)—The units of foreign language may be taught in alternate years, provided there is no break in the progression of instruction from one year to the next.
5. Health Education—Health education includes an awareness of physical and mental health needs; the effects of alcohol, tobacco, drugs, and poisons on the human body; the characteristics of communicable diseases, including venereal diseases; and current crucial health issues.
6. Mathematics (five units)
   a. General math (one unit)
   b. Sequential math (four units)
7. Occupational Education—The five units of occupational education subjects may include, but shall not be limited to, programs, services, and activities which prepare students for employment in office and clerical, trade and industrial, consumer and homemaking, agriculture, distributive, and health occupations.

8. Physical Education—All students physically able shall be required to participate in physical education activities during each semester a student is enrolled in school. A minimum of one-eighth unit each semester shall be required except that any pupil participating in an organized and supervised high school athletic program which requires at least as much time of participation per week as one-eighth unit may be excused from the physical education course during the time of his/her participation in the athletic program. Physical education activities shall emphasize leisure time activities which will benefit the student outside the school environment and after graduation from high school. A pupil shall not be required to enroll in either physical education or health courses if his/her parent or guardian files a written statement with the school principal that the course conflicts with his/her religious belief.

9. Science (four units)—Science includes physics and chemistry. The units of physics and chemistry may be taught in alternate years.

10. Social Studies (four units)—American history, American government, government and cultures of other peoples and nations, and general consumer education, family law, and economics, including comparative and consumer economics, shall be taught in the units but need not be required as full units. All students shall be required to take on unit of American history and one-half unit of the governments of Iowa and the United States, including instruction in voting statutes and procedures, voter registration requirements, the use of paper ballots and voting machines in the election process, and the method of acquiring and casting an absentee ballot.

    The county auditor, upon request and at a site chosen by him/her, shall make available to schools within the county, voting machines or sample ballots that are generally used within the county at such times that these machines or sample ballots are not in use for their recognized purpose.

B. *Enroll in career exploratory courses offered by school (electives).*

C. *Use simulated work samples or similar activities.*

D. *Use individual and group activities which enable students to better understand their individual:*
   1. Value system
   2. Personal career interests and vocational aptitudes
   3. Personal and social strengths and limitations
   4. Self-concept
   5. Disability and how to minimize its effect in their personal career development

E. *Enroll in prerequisite vocational courses if it has been determined that one of the existing school vocational prep courses is the route for the special student to take.*

F. *Participate in on-campus activities with resource persons from the professions, business, industry, or service occupations.*

G. *Use career centers if they are available for self-help activities in discovering careers.*

H. *Utilize shadowing (no pay activities generally no more than a week—several a year depending on the student's schedule and their readiness level).*

I. *Go on field trips.*

J. *Plan career days.*

K. *Go out into the community using maps and signs, public transportation, or other available means of commuting and getting around.*

L. *Become involved with mentors, avocational persons, or volunteer organizations in the community.*

M. *Visit job placement agencies and/or agencies that can offer assistance and aid to disabled persons.*

N. *Volunteer or work.*

O. *Get an after-school job (paying or nonpaying).*

10th Grade Curriculum Activities (On-Off Campus)

A. *Basic curricula instruction in required courses for graduation is identified in Iowa's minimum curriculum requirements and standards. Substitution courses or alternative curriculum should be approved by the local school board (refer to ninth grade section).*

B. *Continue career-occupational career development with inschool activities that enable the student to relate to his/her values, career interests, personal and social attributes, self-concept, and his/her disability and how to accommodate it.*

C. *In-depth exploration (i.e., Experience Based Career Education (EBCE) process) is outlined below.*

1. Approximately six sites a school year (2-12 weeks: average six weeks - Wage and Hour Requirement)
2. No employee-employer relationship
3. No pay but school credit
4. Develop nonpay agreements with placement sites and coordinate with school instructional staff
5. Require activity sheets that coordinate on-campus study with exploration site (related instruction)
6. Provide experience for the student to practice career problem-solving skills in realistic situations

D. *Determine if the student is showing evidence of specific career choice or preference.*

E. *Initiate other on-off-campus activities that nourish the career development and understanding of the student based on current student career development data.*

F. *Identify preparation (training) sequence to be initiated during the 11th and 12th grades.*

11th Grade Curriculum Activities (On-Off Campus)

A. *Continue required academic courses either in regular education or in "specially designed" programs for graduation.*

B. *Students should be provided experiences that enable them to assertively pursue projects and activities that enhance their career development in areas of their choice and demonstrated interest.*

C. *Realistic career-vocational choices need to be examined with parent, student, instructional staff, and counselor. Future goals and possible realistic postsecondary experiences should be discussed and planned.*

D. *Career counseling should be intensified individually by the school counselor and other school personnel.*

E. *Provide occupational training in regular or "specially designed" programs.*

1. The student should be ready to move into an occupational work adjustment and training program which will prepare him/her with entry-level skills (See Appendix A).
2. Training agreements and plans shall be developed.
3. Specific goals and objectives should be agreed to and met. Special Needs support monies (CSP) and weighted monies (Special Education) can be utilized to pay for this "specially designed" training.
4. It is recommended that the student receive school credit but no wage at this time. (He or she can hold a part-time job after school, however.)

Note: If student is planning to enroll in a vocational class during the senior year, he/she will need prerequisite courses to do so. This may limit students participation in work adjustment or entry level skill training during this grade level via "specially designed" programming.

12th Grade Curriculum Activities (On-Off Campus)

A. *Continue required courses, substitution courses, or "specially designed" programs for graduation.*

B. *The student may be ready to enroll in a traditional vocational class, a community site developed for more in-depth occupational training, a vocational co-op program developed with another district, a vocational program provided through a contractual agreement with the community college, or a work activity-sheltered workshop environment. (This decision is made by a staffing team.)*

C. *Related instruction should be coordinated with the special education and support staff.*

D. *Student should become involved in vocational club organizations.*

E. *Placement with professionals for further exploration and decision making is necessary if the student is planning postsecondary education and/or training.*

F. *Identify and provide experiences which will enable the student to successfully enter the postsecondary arena.*

G. *Counsel with student, parents, and significant others concerning support systems that can assist the student at the postsecondary level if needed (e.g., rehabilitation, job services, CETA, community college personnel, sheltered workshop personnel, and college/university information and assistance).*

H. *Update student's resume in readiness for the next career step.*

I. *Off-campus activities will be determined based on the career or occupational training in which the student is involved.*

Note: Training agreements and plans need to be developed for all disabled students placed in the community for training.

Graduation—Student can demonstrate entry-level readiness for: sheltered employment, semisheltered employment, competitive employment, or postsecondary training and/or education.

Assessment Design and Evaluation

Career-vocational assessment and evaluation is a systematic process which provides students, teachers, and counselors with information about student abilities, interests, and readiness for vocational-training education. As such, the process is an information-gathering activity which begins in elementary school and continues throughout high school and beyond. As students progress through the career phases described earlier, each student's career interests, abilities, and career growth are periodically reevaluated.

As the student becomes more actively involved in career-vocational exploration and preparation, in-depth assessment and evaluation is increased. Information from more intensive assessment and evaluation strategies will enable the staffing team to more effectively deal with the needs of each student throughout their exploration and preparation experiences.

When viewed as a continuous process, assessment and evaluation becomes an integral part of any career-vocational activity. Prior to, during, and following exploration and preparation experiences, assessment and evaluation data help students participate in the decision-making process regarding their own interests, abilities, aptitudes, and limitations.

Why Assess?

Prior to selecting and using assessment instruments, it is important to consider why you are assessing and evaluating students' career-vocational interests, perceptions, and skills. What types of information are you hoping to gather? How will the information be used? How will the data influence the program you plan for a particular student?

Generally, educators agree that they carry out assessment because they want to describe students — their attitudes, abilities, motivation, and interests. Three common ways of describing students are:

- To describe a student in terms of his or her development of work attitudes, career-vocational skills, and knowledge
- To describe the areas in which a student needs instruction or counseling; and
- To describe a student's performance as one means of measuring the effectiveness or impact of a particular experience

In all three cases you are gathering information to help make decisions — in the first instance, to help decide whether a student's skills and knowledge about careers and vocations are developing appropriately; in the second, to help determine which kinds of instruction or counseling should be provided; and in the third, to help make decisions about particular parts of the career-vocational program. In all three cases, assessment will help provide more information upon which decisions can be based. The type of assessment procedure you select will depend upon your purpose. What type of information do you hope to gather? What is the purpose? Once these questions are answered, selection of an appropriate instrument will be much easier.

Who Should Conduct Assessments?

Assessment can be administered by any of a number of individuals, including both general and special teachers, vocational instructors, counselors, work experience instructors (AEA), employers, parents, and students themselves. The person(s) selected will depend, to some extent, on the types of information being collected, the types of instruments used, the amount of time required, and the relationship between the assessor and the student.

Teachers, vocational instructors, counselors, work experience instructors, and employers are frequently involved in assessing student performance. Training persons to appropriately administer and score selected career-vocational assessment instruments increases the likelihood that information collected will accurately reflect the current status of the student.

What to Measure

Career-vocational assessment and evaluation generally focuses on achievement, aptitude, interest, and performance. Achievement measures assess a student's ability to perform a particular task or the amount of information he or she has acquired through past experience and instruction. Aptitude measures assess a student's potential ability to learn specific tasks which have been identified as critical to success in a particular career or vocation. Student performance is evaluated to predict the student's probable success in a given occupation or career. Interest measures assess the degree to which particular types of careers or vocations capture a student's interest. The type of assessment procedure you select will reflect the type of information you hope to evaluate and the manner in which you plan to use the information for programming.

How to Measure?

Both formal and informal procedures help gather needed information. Your selection will depend upon your need. Formal instruments have usually been developed by "specialists," are readily available, provide detailed instructions for administering and scoring, are frequently normed and thus allow for comparison of a student's performance with others, and are available for a variety of careers or vocations. Drawbacks of formal assessment procedures are that they are sometimes expensive, turn-around time for computerized or machine scoring is often slow, and the group on which an instrument has been standardized is not very similar to the students for whom you are programming.

Informal measures, on the other hand, frequently involve development of new instruments or modification of existing instruments. Special education teachers, work experience instructors, vocational instructors, psychologists, and guidance counselors can be involved in the development or modification process. Informal measures can be designed to fit your unique circumstances and to reflect local career-vocational curricula, thus providing information which is program specific.

In addition to selecting formal or informal measures, you will have to select from a number of assessment techniques that are available. The most frequently used include: tests, checklists, ratings, and rankings; interviews and informal discussions; and work or job samples. Selecting a technique appropriate to your needs is important to designing career and vocational assessment and evaluation procedures.

Which Factors Should Be Measured?

Certainly the factors you measure will be a reflection of the types of information you hope to gather. Figure 5 shows samples of behaviors of interest to career and vocational instructors, counselors, work experience instructors, and teachers. The list is not exhaustive, but is included as a sampling of the types of factors you may want to measure based on curriculum activities.

Figure 5

Personal-Social, Occupational, and Daily Living Factors

Personal-social factors:

- Relations between a student and his/her peers or co-workers
- Relations between a student and his/her immediate supervisor
- Personal hygiene and grooming
- Reaction to frustration and stress
- Ability to direct and be responsible for daily activities

Occupational:

- Work habits (starting, staying at, and completing tasks)
- Ability to follow instructions
- Attitude toward work
- Work speed, thoroughness, work tolerance, work quality
- Level of need for close supervision
- Ability to seek help when necessary
- Skill in cleaning up work area
- Punctuality, perseverance, dependability
- Application of information (role, lifestyle, self-knowledge, etc.) when making work or career decisions

Daily Living:

- Knowledge and use of safety precautions
- Awareness of and ability to understand various situations outside the classroom
- Decision-making skills
- Improvement with experience or practice
- Ability to understand and apply economics of the work world and its effect on his/her personal lifestyle
- Mobility
- Effective use of leisure time

When to Assess?

Pre-Assessment

Assessment is appropriate at three points in the career-vocational program: prior to, during, and/or following specific experiences. **Pre-assessment** is administered before the student participates in a particular experience or activity. Information gathered at this time can be used to modify the experience to more closely meet the needs of the student or as a basis of comparison for assessments conducted after the activity is completed.

Process Assessment

Assessment carried out during an activity or experience involves direct observation of the student as he/she is performing a particular task. This type of assessment, called **process assessment**, is helpful during the early part of exploration and preparation activities because it helps instructors identify problems which, if left unattended, could reduce the effectiveness of the experience. Checklists, ratings, and other observation systems are frequently used during process assessment.

Product Assessment

Assessment which is performed after an activity or experience is completed focuses on the outcome or product of the experience. Depending upon the product, such items as quality, quantity, completion time, neatness, precision, attention to detail, thoroughness, creativity, and originality are measured.

Pre-assessment, process assessment, and product assessment are often used in combination. For example, you might assess a student's interest in a number of careers prior to a series of career exploration experiences. After those experiences have been completed, you could again assess the student's interests. Similarly, achievement or aptitude measures might be used during and following a particular career preparation activity for the purpose of evaluating progress.

Assessment Techniques and Instruments: Basics

Four assessment techniques frequently used in career-vocational assessment are:

- formal and informal tests
- observation records, checklists, ratings, and rankings
- interviews and informal discussions
- work and job samples

Each of these techniques might be used prior to, during, or following selected exploration and preparation experiences.

Tests are predominantly paper-pencil exercises which may not be the most realistic processes for assessing career-vocational development. However, tests do serve a useful purpose in providing some basic information regarding a student's career-vocational area. When combined with other kinds of career-vocational assessment information, tests provide data that is useful for program planning.

Specific test items are usually designed in matching, true-false, completion, essay, or multiple choice formats. A student's ability to respond to these types of items will influence his/her performance on the test, so consider the student's test-taking skills when selecting tests. Most test questions are written, and thus require varying levels of reading skills. Some tests are "reading-free," (i.e., require no reading skills). In some cases, questions are presented verbally by the assessor. Check tests for presentation and response requirements, as these items may affect the reliability of the information you gather through the testing process.

Observation records, checklists, ratings, and rankings are all strategies for categorizing student performance. Observation records and checklists include lists of behaviors the student is expected to exhibit. An observer watches the student perform a particular task and places checkmarks next to the behaviors observed. Checklists are dichotomous (i.e., yes/no system). Either the student performs or does not perform each target behavior. Observation records show the number of times a student performs particular behaviors over a specified period of time.

Ratings, like checklists, focus on a list of target behaviors. However, ratings involve assigning a value to the student performance. As the rating scale is developed, a set of predetermined values is devised. These might be numerical (0-5, with 0=not at all, 5=always), or may reflect judgement about the performance (poor, acceptable, good, excellent, inadequate, adequate, outstanding). The observer uses the predetermined scale to describe student performance. Scores are sometimes graphed for visual analysis or comparison with later results.

Rankings show relationships between the performance of one student and other students performing the same task. In this instance, the evaluator ranks students in the group from lowest to highest on each of the behaviors of interest.

Checklists, ratings, and rankings are all relatively subjective assessment techniques. Results are influenced by the care and expertise demonstrated by the persons conducting assessment. The reliability of results can be increased by using assessment items which are as objective as possible. For example, the statement "makes negative statements" is more objective than "has a negative attitude;" "arrives on time" is more objective than "is dependable." Having more than one person observe and rate students also strengthens checklist and rating assessments. Results of each observer's ratings can be checked against one another for reliability.

Interviews and informal discussions provide an interactive means of assessing career-vocational experiences. Interviews can be conducted using a structured format or using an unstructured process. Using a preselected set of key questions or topics tends to increase the probability that needed information will be gathered. For example, in assessing a student's experiences as a waitress, the interview might include such items as familiarity with restaurant procedures, understanding of customer needs, or relationships with other personnel. In situations where qualitative information is desired, an interview or discussion format is particularly appropriate.

Work or job samples involve having the student perform specific tasks using materials and tools similar or identical to those used in actual jobs. Work samples, which replicate a segment of a job task from business or industry, usually include the most commonly performed tasks in a particular career or vocation-occupation. Work samples, more than assessment procedures described earlier, permit assessors to observe actual work behaviors in a controlled setting. Frequently, students assessed through work sample procedures see themselves as working rather than taking a test, and consequently respond more postively toward the experience. Work samples may provide information about such items as student capability and interest level, motivation, anxiety, cultural and value differences, language, and basic skills relative to a particular work setting.

Job samples are similar to work samples, but use specific tasks or parts of jobs taken directly from business or industry. Job samples use exact procedures and work standards of the job or occupation of interest, although they are frequently used away from the actual work site.

In addition to differences in technique, career-vocational assessment procedures vary in terms of the person administering the assessment. One assessment strategy worth considering is student self-assessment.

Self-assessment permits students to measure their own performance in certain situations. Procedures for self-assessment can range from formal to informal and include strategies such as standardized self-assessment tests, self-inventory checklists, and daily logs or diaries completed by students.

Standardized self-assessment tests can be used to help a student measure gains in knowledge and skill during or following a particular experience. Frequently, these instruments use a multiple choice format and are designed for student self-scoring. Results can then be discussed with a resource person.

Self-inventory checklists might be used to help students assess previous experience, knowledge, and level of interest in given tasks or fields. You might, for example, use one at the beginning of a specific career experience. Another alternative is to help students develop personal skill histories. This process helps students assess and describe previously learned skills in terms of a particular career area.

Developing Your Own Assessment Instruments and Procedures

Developing tests At times you may find yourself in need of an assessment instrument but unable to locate one which meets your needs. You may decide to develop your own test. A first step will be to outline the content of the test. Content should parallel the information you've provided to students. Review the objectives you have covered and make a short list of the information you expect students to have acquired.

Next, determine the format. You may choose to include true-false, completion, matching, multiple choice, or short essay items. Consider the response requirements each type of item makes on students and the test-taking skills of your students. Select items which most closely meet your needs.

Now, write the test items and an answer key. Review and revise the items. Administer and score the test. In using test results, be cautious about interpretations made from your test.

The recommendations in Figure 6 may help you in developing your own assessment instruments:

Figure 6: Tips for Developing Assessment Instruments

1. Try to measure the skill directly. For example, here are two items designed to find out about a student's knowledge of a mechanic's work.

   a) List three tasks a garage mechanic performs on his/her job.

   b) Do you know what tasks a garage mechanic does at work?

   The first example (a) directly assesses student knowledge; the second one does not. Try to write items which directly measure student performance.

2. If possible, ask students to perform the task or supply the response you are measuring. In the "real world" students will generally be asked to come up with responses rather than respond to a set of fixed choices. Here are two test items which measure student knowledge about wages.

   a) Jeff worked 5 days per week, 8 hours per day at $4.25 per hour. Circle the answer which shows how much Jeff earned in 2 weeks.

   a) $350 b) $170 c) $340 d) $180

   b) Jeff worked 5 days per week, 8 hours per day at $4.25 per hour. How much did Jeff earn in 2 weeks? Show how you figured out the problem and write your answer.

   Item (b) requires that the student perform the task and supply the answer. When the student responds correctly, you know he/she is able to compute wages. With item (a), even if the student responds correctly you are still not certain he/she can compute wages, since the student had a one in four (25%) chance of selecting the correct response without any knowledge of how to compute wages.

3. Try to assess skills in the manner students will be employing these skills in the "real world." For example, you may want to know whether students have the skills needed to complete an employment application. Many applications contain similar items (name, address, birthdate, social security number, employment history, education, etc.). You could devise a test in which you ask students to write each of these pieces of information (i.e., "number one. . .write your full name; number two. . .write your full address and phone number; number three. . .write your birthdate and current age," etc.).

   Your test could include all the types of information included in applications. The weakness of this design is that it is not very similar to the manner in which students will be asked to complete applications. Think about it. Applicants are usually given a form and asked to complete it. No one reads the items aloud; the applicant reads the items him/herself and figures out where to write each piece of information. So, it's better to design your test to assess the skill in the same manner; design the test like an application form, present it to students, and ask them to complete the items.

4. Keep the format as simple as possible. Write questions as briefly as possible. Watch the reading level required. Use or give examples of the types of responses you expect from students. Provide ample space for answers.

5. Avoid sex, race, or regional bias or stereotyping. Once the test is complete, review it with an eye toward identifying any bias; modify or rewrite as needed to remove any problem items.

6. Consider presenting questions through modes other than the written format. For example, you might present tools and ask the student to point to the socket wrench.

Developing checklists and rating forms A key to designing effective checklists and rating forms is to write clear, concise, objective items and to use a simple marking system. One easy way to devise a checklist is to base it on a task analysis of the activity you expect students to perform. Other tips that may help you develop checklists and rating forms include:

- If there is a sequence to the tasks, lay out the checklist in the same order as you expect the tasks to be performed. This facilitates observing and marking.

- Use a clear, easy-to-follow format. Write brief statements. Provide directions for marking the checklist on the observation sheet itself. If appropriate, provide a sample of the marking system. Provide room for comments.
- Try to write items that are objective and observable. Observers can easily determine whether or not a student "talks with co-workers or peers;" it is not as easy to determine whether or not the student "is social."

- Use a scale that is appropriate to the degree of specificity of information you need. Sometimes yes-no is adequate. Sometimes you may want to use a three-point scale (never, sometimes, always). At other times a five-point scale may be appropriate.

Once the checklist is developed, try it. Ask another observer to join you. Compare your results. Clarify any fuzzy items; delete, add, or modify items to increase the usefulness of the instrument you've devised.

Developing work samples Teachers, counselors, and work experience coordinators often design work samples. In devising samples, selection of tasks can be based on several factors. Consider the factors outlined in Figure 7:

Figure 7: Developing Work Samples

1. Which task is most representative of the occupation of interest?
2. Which task requires a progress from simpler to more complex behaviors?
3. Which task requires both gross and fine motor skills?
4. Which task does not requires too much reading?
5. Which task can be completed in a short or manageable length of time?
6. Which task is complex enough to allow observation of emotions and attitudes?

Use resources available in the community to assemble the work samples. Use what's available; try soliciting the aid of a local businessperson engaged in the line of work for which you are building a work sample.

It is recommended that five tasks be selected for inclusion in a work sample. In addition to reflecting the six areas described above, your work samples can be designed to measure at least one factor from each of the following four behavior groups:

Figure 8: Behavior Groups

Group 1

- eye-hand coordination
- manual dexterity
- bimanual coordination
- use of hand tools
- measuring ability
- work place

Group 2

- attention span
- ability to follow a model
- ability to follow verbal instruction
- performing a sequential task

Group 3

- persistence
- frustration tolerance
- maturity

Group 4

- response to praise
- response to criticism
- reaction to assistance
- attitude toward work

With more severely handicapped students you might consider providing practice sessions and/or demonstrations to make sure the student understands what it is he/she is to do.

Developing interviews The interview format provides an excellent opportunity for gathering information about what students have learned as well as how they handle themselves in an interactive setting. A skilled interviewer listens to answers while concurrently observing the nonverbal communication of the student. Some interview strategies to consider are listed in Figure 9.

Figure 9: Interview Strategies

1. Include many open-ended questions rather than predominantly yes-no or short response type questions. For example, ask about how things were done, or ask students to describe aspects of an experience.
2. Use a set of key questions and a series of probing follow-up queries. The key questions will help you keep the interview moving and help you cover the ground you want to. The probes will allow you to ask for more information about particular parts of the student's experience.
3. Include both "information" and "feeling" questions. Design the interview to get information about what the student learned and what he/she feels about those learnings and experiences.
4. Keep questions short. Remember, they will be presented orally. You want students to invest their energy in answering questions, not figuring out what it is you're asking.
5. Once you have listed all the questions you want to include, try to sequence them so the interview will flow naturally from one question to another.

Triangulation

Triangulation refers to the process of gathering information through several sources, or from the same source using different methods. The purpose behind triangulation is verification of data. For example, if you are interested in assessing performance, you might gather information through direct assessment, self-assessment, and a self-administered checklist. Or, you might use direct assessment at a job site repeatedly. Another example would be to use both process and product assessments during a career preparation activity. The information you obtain through each assessment procedure will help verify the information you collect. Triangulation strengthens assessment by providing multiple information sources.

Adaptations and Considerations

Depending upon the students with whom you work and the assessment procedures or instruments you select, you may need to modify or adapt the instruments or procedures. Figure 10 suggests types of adaptations you may want to consider. Modify only if you must to get an accurate picture of student's performance. As you modify assessment instruments or procedures, remember that adaptations will affect results; interpret results with caution.

Figure 10: Adapting Assessment Instruments and Procedures

1. Alter the presentation. Some assessment procedures require reading. You might adapt these by presenting items orally. You could read the items to the student, make a tape recording of directions or test items, or develop a slide-tape presentation with accompanying checklist.
2. Alter the responses required of the student. Many tests require written responses. You might modify the assessment to permit the student to respond orally. Another alternative might be from a machine-scored answer sheet to an answer sheet which permits the student to write answers.
3. Consider dividing the assessment instrument into smaller sections to reduce the length of time it takes to administer. Assess students through several shorter sessions spread across several days.
4. Develop practice items or pretest trials using the same response format as the test. Teach students how to respond (to mark answers or use an answer sheet).
5. Consider the appropriateness of the instrument or procedure in terms of both age and maturity of the student. Use instruments when they seem appropriate to an individual student's maturity level, rather than at a designated age level.

A Word of Caution

As you select, develop, and use assessment procedures in career-vocational settings, bear in mind that assessment is a continuous activity. Each time you assess a student's performance you obtain information about that student at that one point in time on that one particular instrument. As student's progress through career-vocational exploration and preparation experiences, both skills and attitudes change. By designing an ongoing assessment program you will be able to observe and measure those changes.

Remember that no one instrument or procedure will provide all the information you need. For any one instrument or procedure you use, a number of factors will influence student performance (self-concept, physical well being, attitude toward assessment, learning style, relationship with assessor, tolerance level, etc.). Take these factors into consideration as you interpret student scores, particularly when scores are being used to make decisions about a student's program.

As you assess, keep in mind that you are gathering information, not just by computing a student's score, but by observing the student as he/she completes the assessment. Careful observation can provide an abundance of valuable information about the students with whom you work.

Selecting Assessment Instruments and Procedures

Selecting appropriate assessment procedures and instruments need not be overwhelming. It may help to talk yourself through a series of assessment queries such as those in Figure 11.

Figure 11: Queries for Developing Assessment Procedures

1. What is the purpose of your assessment. . .why are you conducting assessment?
2. What types of information do you need to gather?
3. How will the information be used?

   For example, if you want to be able to compare students with others, a standardized instrument would be appropriate; if you want to use the information to determine whether to move to the next step in the curriculum, an informal, program-specific instrument would be appropriate.
4. When do you want to conduct assessment? Are you most interested in gathering information prior to, during, or after the experience or activity?
5. Which techniques do you feel are most appropriate for your situation. . .tests, checklists or ratings, interviews or discussions, or work and job samples?
6. Does an assessment instrument already exist, or will you need to develop (or modify) one?

Compendium of Test Descriptions

The following review of assessment instruments is provided as an aid in your selection process. Reviews are provided for formal and informal assessment and evaluation procedures which can be used for pre-assessment, process assessment, and evaluation or product assessment.

The compendium is not meant to be comprehensive, but to provide information about current assessment instruments which illustrate the strategies discussed herein. It is hoped that you will add to the compendium as you develop a manageable assessment strategy for the students you serve.

Assessment and evaluation instruments in the compendium are:

Comprehensive Occupational Assessment and Training System (C.O.A.T.S.)
C.I.T.E. Learning Styles Instrument
Career Assessment Inventory (CAI)
AAMD-Becker Reading Free Vocational Interest Inventory
Brigance Diagnostic Inventory of Essential Skills
Burks Behavior Rating Scales
Career Awareness Inventory
Career Information System of Iowa (C.I.S.I.)
Career Information System of Iowa (C.I.S.I.)
Career Maturity Inventory (CMI)
Diagnostic Study Record
The Differential Aptitude Test (DAT)
Employer: Evaluation Form for EBCE
General Aptitude Test Battery B-1001 Edition (GATB)
Nonreading Aptitude Test Battery (NATB)
Iowa Career Education Inventory
Kuder General Interest Survey Form DD
Matthews Student Evaluation Form, *The Pointer*, Winter, 1973 pages 116-120
My Self-Checklist
Picture Interest Exploration Survey (PIES)
Prevocational Readiness Battery (VALPAR 17)
San Francisco Vocational Competency Scale (SFVCS)
Self-Concept of Ability as a Worker Scale
Social and Prevocational Information Battery (SPIB)
Social and Prevocational Information Battery, Form T (SPIB-T)
Tests for Everyday Living (T.E.L.)
Strong Campbell Interest Inventory Form T325
Structured Learning Skill Checklist
Supervisors Job Sample Evaluation Form
Talent Assessment Program (TAP)
Vocational Education Readiness Test (VERT)
Vocational Interest Experience and Skill Assessment (VIESA)
Vocational Exploration/Special Project (VESEP)
Vocational Interest and Sophistication Assessment (VISA)
Work Adjustment Rating Form (WARF)
Wide Range Employment Sample Test (WREST)
Wide Range Interest-Opinion Test (WRIOT)
Work Interest Inventory, from the *Janus Job Planner*
You and Your Abilities Inventory

Name: Comprehensive Occupational Assessment and Training System (C.O.A.T.S.)

Authors: Prep, Inc.

Vendor: Prep Incorporated
1007 Whitehead Road
Trenton, New Jersey 08638 (609) 882-2668

Type: Living Skills Section = achievement
Work Samples Section = aptitude; work sample format
Employability Attitudes Section = attitude assessment
Job Matching Systems Section = interests, achievement

Uses AV cartridges

Items: Job Matching Section uses 15 AV cartridges to present examples of behavior. Students respond on answer sheet indicating interest (5 cartridges), experience level (5 cartridges), and capability (5 cartridges).

Work Samples: self-paced audio visual administration at work stations, computer scored.

Employability Attitudes Section: 360 behavioral incidents illustrate 36 attitude categories.

Standardized Population: Information not available.

Administration: Primarily audio-visual presentation, written responses on answer sheets; one-to-one administration.

Components: The living skills section assesses nine areas:
1. Consumer
2. Health
3. Government and law
4. Community resources and occupations
5. Reading
6. Writing
7. Computing
8. Speaking and listening
9. Problem solving

The work samples section includes nine samples of actual job activities and measures five areas:
1. Motions
2. Mental functioning
3. Performance
4. Operations
5. Materials and equipment

The employability attitudes section includes 36 behavioral categories (13 job seeking, 23 job maintaining and advancement).

Job Matching Systems: preferences, experiences, and capabilities matched to job training and job opportunities

Scoring: Primarily computer scored

Purpose: The purpose of the work samples section is to assess and predict vocational potential of individuals before placement on actual jobs. The employability attitudes sections is designed to measure attitudes of students toward work and work environments. The living skills program is designed to develop competency in five general knowledge areas using basic skills in reading, writing, speaking-listening, computation, and problemsolving. Information from C.O.A.T.S. can be used for diagnosis, placement, and periodic assessment.

Special Needs Considerations: Not designed specifically for handicapped, but useable with mildly handicapped

Note on scoring of living skills section: student data compared to one of three success levels: competency level 1, 2, 3 based on income level, education and job status.

Name: C.I.T.E. Learning Styles Instrument

Authors: A.M. Babich, P. Burdine, L. Albright, and P. Randol

Vendor: A Handbook on Modifying Vocational Curricula for Handicapped Students
Wisconsin Vocational Studies Center
University of Wisconsin-Madison
964 Educational Science Building

Date: May, 1980

Type: Self-report Form

Items: 45

Standardized Population: Not Available

Administration: Can be given orally or the students can read the inventory and check the scale (most like me - least like me) themselves.

Components: The inventory assesses nine areas:

1. visual language
2. visual numerical
3. auditory language
4. auditory-numerical
5. Kinesthetic-tactile
6. social-individual
7. social-group
8. expressive-oral
9. expressive-written

Scoring: Scoring scale is included in the document with the inventory

Purpose: The instrument is designed to assess the disabled student's learning style. It will enable the person working with disabled students to utilize their preferences in learning or working situations.

Special Needs Considerations: For students who have difficulty reading or prefer auditory to visual stimuli, the teacher may read each statement aloud and allow a few seconds for the students to answer.

Name: Career Assessment Inventory (CAI)

Author: Charles B. Johansson, Ph.D.

Vendor: Interpretive Scoring Systems
A Division of National Computer Systems, Inc.
4401 West 76th Street
Minneapolis, Minnesota 55435 (612) 830-7600

Date: 1978

Type: Inventory

Items:

Standardized Population: Not Available

Administration: Not Available

Components: The inventory measures the strength of six general occupational themes:

1. Realistic
2. Investigative
3. Enterprising
4. Social
5. Artistic
6. Conventual

These are carried further into basic occupational interest areas and comparison of personal likes and dislikes with samples of workers employed in specific occupations.

Scoring: Machine Scored

Purpose: Can be utilized as a guidance tool for personal career development and understanding of one's career potential

Special Needs Considerations: The inventory is most suited for use with individuals for whom skills or technical employment or training is indicated.

Name: AAMD-Becker Reading Free Vocational Interest Inventory

Author: Ralph L. Becker

Vendor: American Association on Mental Retardation
5101 Wisconsin Avenue NW
Washington, D.C. 20016

Date: 1975

Type: Interest inventory; paper-pencil test

Items: Series of illustrations presented in forced-choice format. Pictorial items for 55 male, 40 female triads. In each triad (group of three illustrations), the student selects the one activity he/she would most like to do). Consumable booklet for handscoring.

Standardized Population: Norms developed during 1969-70 school year in eight regions of the nation (Mideast, Southeast, Southwest, Far West, Rocky Mountain, Plains, Great Lakes, New England); norms for public day school students (male/female), for residential school students) (male/female), and composite norms (male/female). Norms based on performance of educable mentally retarded students in grades 9-12.

Administration: Two forms available: Form M (male), Form F (female). Individual or group administration. Inventory can be self-administered. Requires approximately 45 minutes to administer.

Components: Inventory includes 11 male and 8 female interest areas:

Male Interest Areas:
1. Automotive
2. Building trades
3. Clerical
4. Animal Care
5. Food service
6. Patient care
7. Horticulture
8. Janitorial
9. Personal service
10. Laundry service
11. Materials handling

Female Interest Areas:
1. Laundry service
2. Light industrial
3. Clerical
4. Personal service
5. Food service
6. Patient care
7. Horticulture
8. Housekeeping

Scoring: Raw score converted to T score (normalized standard score); T score converted to percentile rank; individual profile chart provided for profiling percentile ranks - shows high and low interest areas of student

Purpose: The inventory is designed to measure vocational preferences of students in a manner that requires no reading skill on the part of the student. The nonreading test is designed for use with educable mentally retarded students at the secondary level. The inventory includes both unskilled and skilled occupations.

Special Needs Considerations: Requires no reading. Designed for educable mentally retarded. Several sets of norms provided. This instrument needs further updating in its presentation to accommodate male and female disabled students in nontraditional work roles.

Name: Brigance Diagnostic Inventory of Essential Skills

Author: Albert H. Brigance

Vendor: Curriculum Associates, Inc.
North Bilerica, Massachusetts 01862

Date: 1981

Type: Achievement, some interest. Written test, some rating scales and checklists. Criterion-referenced.

Items: Twenty-six subtests measuring two types of skills: basic adademics and applied skills. Many paper-pencil tests, some oral response (reading), many completion items where student must supply the answer, includes ten rating scales.

Standardized Population: Not standardized, it is a criterion-referenced instrument. Extensive field testing and review conducted in 27 states.

Administration: Most subtests involve oral instructions, some written instructions; primarily written response, some oral response. Some tests are designed for one-to-one administration, some for group administration.

Components: A-T = basic academics; U-Z = applied skills

A. Word recognition grade placement
B. Oral reading
C. Reading comprehension
D. Functional word recognition
E. Word analysis
F. Reference skills
G. Schedules & graphs
H. Writing
I. Forms
J. Spelling
K. Math grade placement
L. Numbers
M. Number facts
N. Computation of whole numbers
O. Fractions
P. Decimals
Q. Percents
R. Measurement
S. Metrics
T. Math vocabulary
U. Health & safety
V. Vocational
W. Money & finance
X. Travel & transportation
Y. Food & clothing
Z. Oral communication & telephone skills

Scoring: Criterion-referenced for each subtest

Purpose: Assesses basic academic skills and applied skills identified as essential for mastery for successful functioning as an independent citizen, consumer, worker, family member. Can be used to identify basic skills which have/have not been mastered, to identify strengths and weaknesses, to identify instructional objectives for students, and to track mastery of skills. Designed for use in secondary programs serving students with special needs.

Special Needs Considerations: Assumes minimal mastery of some basic skills. Requires reading, writing, and basic math skills.

Name: Burks Behavior Rating Scales

Author: Harold F. Burks

Vendor: Arden Press
8331 Alvarado Drive
Huntington Beach, California 92646 (714) 536-6155

Date: 1971

Type: Behavior assessment. Rating Scale.

Items: One hundred sixteen short sentences or phrases; rater must mark each item with a numerical rating (scale = 1.5, 1=have not noticed the behavior at all, 5=have noticed the behavior to a very large degree); content of items varies, for example "does not ask questions". . ."acts silly". . ."is sarcastic"

Standardized Population: Used with 95 disturbed children, grades 1-6, ratings and re-ratings completed by teachers yielding correlation coefficients of .60 to .80; face validity information collected through extensive use.

Administration: Teacher or someone who has worked with the student rates the student on each of the 116 items. The instrument may be too clinical for persons assessing career development.

Components: One hundred sixteen items reflecting 20 patterns or categories of behavior:

1. Excessive self-blame
2. Excessive anxiety
3. Excessive withdrawal
4. Excessive dependency
5. Poor ego strength
6. Poor physical strength
7. Poor coordination
8. Poor intellectuality
9. Poor academics
10. Poor attention
11. Poor impulse control
12. Poor reality contact
13. Poor sense of identity
14. Excessive suffering
15. Poor anger control
16. Excessive sense of persecution
17. Excessive sexuality
18. Excessive aggressiveness
19. Excessive resistance
20. Poor social conformity

Scoring: Ratings totaled in each category; total score for each of the twenty categories is categorized as not significant, significant, or very significant.

Purpose: Designed for preliminary identification of patterns of pathological behavior shown by children. The scale attempts to identify the severity of certain negative symptoms. Can be used to show changes in behavior patterns over a period of time. Can be used to identify personality areas which warrant further evaluation. An information tool for school personnel for conferencing.

Special Needs Consideration: Should only be used with supporting information from other sources. Standardized on elementary aged disturbed children.

Name: Career Awareness Inventory

Author: L. Fadale

Vendor: Scholastic Testing Service
Bensenville, Illinois

Date: 1974

Type: Paper-pencil test. Achievement (knowledge of careers).

Items: Multiple choice format.

Standardized Population: Not Available Split half Spearman Brown Reliability coefficient .80.

Administration: Designed for grades 4-8, the test is self-administering and untimed. Estimated administration time is 60-90 minutes.

Components: Seven major parts:

1. Careers, workers, job occupations
2. Awareness of educational requirements
3. Personal acquaintance with workers
4. Familiarity with occupations that produce products
5. High prestige jobs
6. Common clustering occupations
7. Job requirements

Scoring: Can be hand scored or machine scored.

Purpose: Measures student career awareness. Taps student's personal experiences, social attitudes, and knowledge about careers and occupations.

Special Needs Considerations: Could be modified - items could be read aloud to students if one-to-one administration procedures were adopted.

Name: Career Information System of Iowa (C.I.S.I.)

PROCESS - Process of Reviewing Options through Career Exploration and Self Study

Vendor: Iowa Department of Public Instruction
Career Education Division
Grimes State Office Building
Des Moines, Iowa 50319 (515) 281-3382

Type: Exploratory system containing Iowa-Based Occupational and Educational Information.

Items: Needle-Sort Card Deck; Microfiche Set 42X includes: Occupational Briefs, Attributes, Educational Program Statements, Educational Opportunities and Financial Aid Information; Leaders' Guide, printed set of Occupational Briefs, printed set of Educational Program Statements, PROCESS User Handbook.

Standardized Population: The system was originally developed for secondary level students; however, a federal grant was received in 1979 to expand the system for an adult population also.

Administration: Through a series of activities in the PROCESS User Handbook the users gain knowledge about themselves and the world of work. After completion of QUEST (21-question questionnaire) via the needle-sort deck or computer, the user obtains a list of occupations that may be of interest to them.

Components: A major component is the occupational information on the 293 occupations including data on cross-referencing these occupations to other system (i.e., Worker Trait Groups, DOT, etc.), Personal Aptitudes, Duties, Earnings, Working Conditions, Employment Outlook, Preparation and Training, and Sources of Additional Information. Educational opportunities in the state from two & four year colleges and universities and specialized schools. Also, a major activity in the PROCESS User Handbook is QUEST -(21 question, self-perception questionnaire) which enables the users to relate self to various attributes or characteristics of occupations.

Scoring: A few of the PROCESS User Handbook activities have right and wrong questions and the answer key is in the back of the book. QUEST has no right or wrong answers because it is a self-perceptive instrument. After marking the response in the handbook, the user is able to sort through the occupations.

Purpose: To serve as an exploratory system to be used to provide occupational and educational information to users; also, to make the users more aware of themselves and the world of work.

Special Needs Considerations: Some of the vocabulary may be a concern and the person administering the system needs a very thorough knowledge of the system to aid the user with the questions in QUEST. A very important aspect is to be aware of how to use C.I.S.I. with other career exploration activities.

Name: Career Information System of Iowa (C.I.S.I.)

AWARE - Awareness of Work Activities and Related Exploration

Vendor: Iowa Department of Public Instruction
Career Education Division
Grimes State Office Building
Des Moines, Iowa 50319 (515) 281-3382

Date: 1977 to date

Type: Exploratory system that helps to relate self to the world of work through an awareness and exploration of career clusters and job families.

Items: Needle-Sort Deck, Leaders' Guide, AWARE User Handbook

Standardized Population: The system was developed for upper elementary students.

Administration: Through a series of activities in the AWARE User Handbook, the user gains knowledge about themselves and the world of work via the needle-sort deck the users become aware of cluster areas of interest.

Components: A series of activities that relates to self-awareness and exploration of the 15 modified user clusters. There is a series of Exploring Me activities and exploring the clusters. The cards have cluster information, school subjects/activities, and AWARE Job Family information.

Scoring: There are no right and wrong answers so there is no scoring necessary. The sorting process is done via the card deck.

Purpose: To increase each users positive self-concept and develop a greater awareness of and a favorable attitude toward work

Special Needs Considerations: This system has been used quite often with special needs population due to its basic ground level exploratory level of information. A very important part of using the system is to have a clear understanding of what is involved and how to connect AWARE with other career education explorations.

Name: Career Maturity Inventory (CMI)

Author: John Crites

Vendor: CTB McGraw-Hill Publishers Test Service
Order Service Center
2500 Garden Road
Monterey, California 93940 (408) 649-8100

Date: 1973

Type: Inventory. Paper-pencil test.

Items: One hundred items. Each item is a short vignette of 50-80 words followed by 5 choices (one of which is "don't know"). Items ask students questions similar to the following. "What do you think?" "What is her/his occupation?" "Which of the following occupations would be best for him/her?" "What should he/she do?"

Standardized Population: Not Available

Administration: Designed for grades 6-12. Can be administered individually or in a group. Students read vignette, select and mark response. Do not have to administer both halves of the test in the same sitting. Reading difficulty (using Dale-Chall index) is stated to be about 6th grade level.

Components: Test includes two major portions:

1. Attitude scale, which surveys five attitudes:
   a. involvement in the career choice process
   b. orientation toward work
   c. independence in decision making
   d. preference for career choice factors
   e. conceptions of the career-choice process
2. Competence test which measures five areas:
   a. self-appraisal
   b. occupational information
   c. goal selection
   d. planning
   e. problem solving

Scoring: Hand or machine scored. If machine scored, produces five reports: Career Maturity Profile, Class Record Sheet, Frequency Distribution, Administrator's Summary, and Right Response Summary.

Purpose: Assesses student's attitudes and feelings toward making a career choice and student's knowledge about occupations and decisions involved in choosing a career. Pinpoints attitudes and problems related to career maturity; permits counselors to work with individuals or groups in career planning. Measures career decision-making abilities and attitudes.

Special Needs Considerations: Could be read to students or taped. Test is quite lengthy and if self-administered would require a considerable amount of time for student to work independently.

Name: Diagnostic Study Record

Authors: Paul Witty and David Kopel

Vendor:

Iowa Department of Public Instruction
Special Education Division
Grimes State Office Building
Des Moines, Iowa 50319
order #: 5100-C100480-5/78 (515) 281-3176

Date: 1978

Type: Interest inventory, activity inventory. Paper-pencil test.

Items: Test consists of 21 items. Some items are open-ended information items, some are yes/no, some are rating scale items (scale = never, sometimes, often).

Standardized Population: Not Available

Administration: Self-administering; student reads items and writes answers. Can be administered in groups or individually.

Components: Seven Major areas are covered:

1. Personal habits
2. Clubs, organizations
3. Money
4. Recreation
5. Experiences (farm, museum, circus, park)
6. Attitudes toward school
7. Hobbies

Scoring: No total score is calculated; evaluators are encouraged to use the information obtained without translating it into a "score."

Purpose: Designed to be a tool for gathering information about students' interests and activities.

Special Needs Considerations: Could be modified so no reading is required, using an interview technique or recording queries on tape.

Name: The Differential Aptitude Test (DAT)

Authors:

Vendor: The Pschological Corporation
757 Third Avenue
New York, New York 10017

Date: 1973

Type: Paper-Pencil Questionnaire

Items: Not Available

Standardized Population: Spring and fall norms (percentiles and stanines) are provided for students in grades 8-11 and fall norms for grade 12. Twenty-five years of research.

Administration: Eight tests are compiled in a booklet for both Forms S and T. Testing time is six to thirty minutes per test; slightly over three hours for the complete battery.

Components: Nine areas covered:

1. Verbal reasoning
2. Numerical ability
3. VR & NA (Verbal plus Numerical)
4. Abstract reasoning
5. Clerical speed and accuracy
6. Mechanical reasoning
7. Space relations
8. Spelling
9. Language usage

Scoring: Computer

Purpose: Provides the student with information on his/her occupational interest, information which will assist the student and teacher in identifying education needed to pursue interest areas.

Special Needs Considerations: Reading may be a problem for some students. The students will also need to understand the procedure for marking the answer sheet that will computerize the results.

Name: Employers: Evaluation Form for EBCE

Author: Marvin Lewis

Vendor: Iowa Department of Public Instruction
Division of Special Education
Grimes Office Building
Des Moines, Iowa 50319 (515) 281-3176

Date: 1978

Type: Rating scale for use by employers

Items: Scale includes 18 items; each item consists of short statement about student's work or attitude.

Standardized Population: Not Available

Administration: Each item must be marked; items are marked on a five-point scale (1 = low, 5 = high). Recommended that it be completed quarterly, once by the community resource person and once by the teacher or work experience instructor.

Components: Covers 18 areas:

1. Attendance
2. Reliability
3. Task completion
4. Respect
5. Ability to follow instructions
6. Benefit from instructions
7. Understanding of instructions
8. Use & care of equipment
10. Satisfaction
11. Following of rules
12. Acceptance of criticism
13. Ability to seek additional work when finished with task
14. Relationships with fellow workers
15. Appearance
16. Knowledge of job rules
17. Improvement
18. Future employability

Scoring: Each of the 18 items is rated (1=poor, 2=below average, 3=average, 4=above average, 5=excellent).

Purpose: Designed for evaluation of the student's performance at a specific job site.

Special Needs Considerations: It is recommended that the rating be completed by the three individuals identified for the purpose of comparison. This will eliminate some of the subjectivity in this type of evaluation.

Name: General Aptitude Test Battery B-1001 Edition (GATB)

Authors: Developed by U.S. Employment Service

Vendor: U.S. Employment Service
U.S. Government Printing Office
Washington, D.C.
(or through state employment service office)

Date: Not Available

Type: Aptitude measure. Paper-pencil and hands-on items.

Items: Includes eight subtests which are paper-pencil items on vocabulary, matching names, arithmetic word problems, and four subtests which are manual apparatus tests measuring perception of two and three dimensional objects (pegboard and rivet board).

Standardized Population:

Administration: Includes timed tests. Approximate administration time estimated to be about 2 1/2 hours.

Components: Measures aptitude in nine areas:

1. General learning ability
2. Verbal aptitude
3. Numerical ability
4. Spatial aptitude
5. Form perception
6. Clerical perception
7. Motor coordination
8. Finger dexterity
9. Manual dexterity

Test includes 12 subtests (eight written, four manual):

1. Tool Matching
2. Name Comparison
3. Computation
4. Three Dimensional Space
5. Arithmetic Reasoning
6. Vocabulary
7. Form Matching
8. Mark Matching
9. Pegboard Place
10. Pegboard Turn
11. Finger Dexterity Assembly
12. Finger Dexterity Disassembly

Scoring:

Purpose: Designed to assess "vocationally significant attitudes" of students; the test purports to predict on approximately 500 occupations (mostly semiskilled and unskilled), and to measure student aptitude in nine areas. Test is closely aligned with the *Dictionary of Occupational Titles*.

Special Needs Considerations: Required considerable reading; designed for people with at least a 6th grade academic level; probably inappropriate for mentally disabled students.

Name: Nonreading Aptitude Test Battery (NATB)

Authors: U.S. Employment Service

Vendor: U.S. Employment Service
U.S. Government Printing Office
Washington, D.C.
(or through state employment service office)

Date: Not Available

Type: Aptitude measure. Paper-pencil test.

Items: Includes paper and pencil items similar to those on the GATB (General Aptitude Test Battery), except that this test does not include any math problems (numerical ability is measured through manual manipulation of coins). Vocabulary items are presented orally.

Standardized Population: Information on standardized norms is available; the test was normed using a population of disadvantaged individuals.

Administration: Estimated administration is 3 1/4 hours.

Components: Test assesses nine aptitude areas:

1. General learning ability
2. Verbal aptitude
3. Numerical ability
4. Spatial aptitude
5. Form perception
6. Clerical perception
7. Motor coordination
8. Finger dexterity
9. Manual dexterity

14 subtests are included.

Scoring:

Purpose: This test is designed to measure aptitude of students who are nonreaders. The instrument was developed in response to criticisms of the GATB when used with students with low reading skills.

Special Needs Considerations: Test does not require reading skill.

Name: Iowa Career Education Inventory

Authors: Developed by "A Career Education Articulation Model, K-14" project, administered by Carl Larson

Vendor: Department of Public Instruction
Career Education Division
Grimes State Office Building
Des Moines, Iowa 50319 (515) 281-3382

Date: 1979 (currently - 1981 - being revised)

Type: Includes some interest inventory items, some knowledge-achievement items.

Items: The inventory includes a total of 60 items per test; items are presented in a multiple choice (3-4 choices) format. Three sample questions are provided for student practice.

Standardized Population: Not available, but statistical information on development and field testing of items is available from the Career Education Division of the Department of Public Instruction.

Administration: Student reads items and marks answers. Approximately one hour needed for administration. Can be individually or group administered. Can be administered at one time, or readministered periodically. Not a timed test. Students respond on a separate answer sheet.

Components: Inventory includes a series of four tests, four levels: A (grades K-3), B (grades 4-6), C (grades 7-9), D (grades 10-12). On each test ten items measure student performance in each of the following domains:

1. Self
2. Self & society
3. Interpersonal relations
4. Decision making
5. Occupational, educational & economic concepts, & skills
6. Work attitudes and values

Scoring: Machine or hand scored; criterion score (#/10) for each domain; total score computed. Can be analyzed by group or individually. If individually, caution should be exercised with domain score interpretation since the score is based on only ten items, reliability may be questionable). Raw scores converted to percentiles and NCEs (normal curve equivalents).

Purpose: The inventory is a companion to *Models for Career Education in Iowa*, and is designed to measure each career education objective in the model, to assess student progress in each of the six domains of the models. The series of four tests of student career development are designed primarily for needs assessment and program evaluation.

Special Needs Considerations: Test is currently being revised.

Name: Kuder General Interest Survey Form DD

Author: C. F. Kuder

Vendor: Science Research Associates
Chicago, Illinois

Date: 1966

Type: Interest inventory. Paper-pencil test.

Items: One hundred items, triads of three activities. In each triad the student is asked to pick the most and least preferred activity.

Standardized Population: Occupational scales: 37 scales based on female criterion groups, 77 scales based on male criterion groups; college scales: 19 scales developed using females, 29 scales developed using males. Test-retest relibility scores with a median of .90; concurrent validity information available; no information available on predictive validity.

Adminsitration: Test uses booklet and answer sheet. Estimated administration time is 30 minutes. Designed for group administration, students study triads and mark answers.

Components: Test includes 114 occupational scales, 48 college major scales.

Scoring: Machine scoring is mandatory. Results include a verification score focusing on carelessness and insincerity on the part of students. Scores are correlation coefficients which show the relationship between student responses and responses of criterion groups.

Purpose: Measures student preferences in relation to occupations and careers, compares student preferences to preferences of people in occupations. Designed to help students narrow their fields of exploration.

Special Needs Considerations:

Name: Matthews Student Evaluation Form, *The Pointer*, Winter, 1973 pages 116-120

Author: Peter R. Matthews

Vendor: Peter R. Matthews
Lock Haven State College
Lock Haven, Pennsylvania (717) 748-5351

Date: 1973

Type: Performance rating scale.

Items: Form includes 42 defined, weighted variables randomly arranged. Evaluator marks student on each item.

Standardized Population: Not Available

Administration: Recommended administration 4 times in a 40-week school year; once every 10 weeks. Designed for mildly mentally disabled. Use of personal interview technique is recommended. Evaluator reads item to student's teacher or employer and checks box as the teacher or employer responds on a five point scale (1=low, 5=high). Subsequent administrations involve teacher or employer evaluating the student without the evaluator. Approximate administration time is 10-15 minutes.

Components: Form includes 42 variables, examples of types of variables included are: attendance, self-control, following instructions, initiative, completion of assigned tasks, quality of work, care and use of equipment.

Scoring: Each item scored 1-5. Each item's score is multiplied by a weighted value. The products are added and divided by the total number of items rated (maximum 42). This yields a K score which describes overall performance and is seen as a rough indicator of job readiness.

Purpose: Designed to provide a rating of how well a mildly mentally disabled student performs at work and school. The form yields a list of student strengths and weaknesses which can be used to measure job readiness or job improvement. Both employers and teachers can use the rating form.

Special Needs Considerations: Can be utilized as an inventory with other disabled students who are placed for experiental exploration or vocational training. Assessment items provide generic format that can be adapted to various situations.

Name: My Self-Checklist

Author: Robert Vallett

Vendor: Fearon Publishers Incorporated
6 Davis Drive
Belmont, California 94002

Date: 1973

Type: Self-concept measure.

Items: Four sections: 1st section requires that students check one of three columns (yes, no, not sure) in response to items which can be read by the student, or read to the student by the tester; 2nd section consists of ten incomplete sentences student either writes or tells response; 3rd section asks student to list personal strengths and weaknesses; 4th section asks student for general concerns or comments relative to the test.

Standardized Population: Not Available

Administration: Can be administered to group or to an individual student. Recommended for elementary or junior high students.

Components: Includes four sections: self-descriptive items, completion items, personal strengths and weaknesses section, and section on perceptions of self. Taps several components of self-concept:

1. Physical self
2. Self-achievement
3. Self-interest
4. Personal concerns

Scoring: 1st section: positively stated items scored from 0-2 depending upon student response (yes=2, no=1, 0=0); 19 negatively stated items scored in the same manner, but reversed values (no=2, yes=1, not sure=0). 10 completion items scored (2=positve completion, 1=negative completion); total possible score = 100.

Purpose: This instrument is designed to be a tool to assess self-concept of elementary and junior high students. It has been developed to provide an opportunity for students to express feelings about how they perceive themselves.

Special Needs Considerations: Items can be adapted by presenting items verbally for nonreading students or by asking students for a verbal response, but this requires individual administration. A Spanish language edition is available.

Name: Picture Interest Exploration Survey (P.I.E.S.)

Authors:

Vendor: Education Achievement Corporation
P.O. Box 7310
Waco, Texas 76710 (817) 772-7812

Date:

Type: Interest inventory.

Items: Nonreading format; uses color slides and audio tape, and NCR student response sheets. Slides show worker's hands performing tasks representing various occupations.

Standardized Population: Validation studies conducted, information available from Education Achievement Corporation.

Administration: Approximately 40 minutes required, 20-30 for administration, 10 for scoring. Can be administered in one-to-one or group format. For students 7th grade to adult.

Components: One hundred sixty color slides showing workers' hands in jobs in 13 career clusters (clusters are the same as in the *Occupational Outlook Handbook*)

1. Industrial production
2. Office occupations
3. Service occupations
4. Education and related occupations
5. Sales occupations
6. Construction occupations
7. Transportation occupations
8. Scientific and technical occupations
9. Mechanics and repairs occupations
10. Health occupations
11. Social scientists and services occupations
12. Art, design, and communications occupations
13. Agriculture occupations

Scoring:

Purpose: To help students investigate their vocational interests and apply this information to their career goals. Results can be used to assist students in education planning, to explore career interests, to develop increased self-awareness, to develop individual plans and goals, to relate classroom (guidance) activities to student interests. Information for curriculum planning, job placement, counseling and career exploration.

Special Needs Considerations: Nonreading format.

Name: Prevocational Readiness Battery (VALPAR 17)

Authors:

Vendor: Valpar Corporation
3801 East 34th St. Suite 105
Tucson, Arizona 85713

Date:

Type: Work sample, hands on.

Items: Some hands-on simulations, some sound/slide tape materials, some use of simulation and gaming.

Standardized Population: Reported to have research norms for ten groups, including homebound employment, sheltered workshop settings, activity centers, and competitive employment situations.

Administration: Estimated 5 1/2 hours; most tests individually administered.

Components: Instrument covers five major areas:

1. Development assessment - mental and physical abilities (includes patterning, color discrimination, manual coordination, work range, dynamic strength, walking, vocational knowledge, matching, and measurement).
2. Workshop evaluation - simulation of three-step assembly process.
3. Vocational Interest Screening - students compare two jobs; covers six areas (physical sciences, outdoor, office work-clerical, machine operations, sales, and social services).
4. Social/Interpersonal Skills - descriptions of common barriers to employment, social skills, personal skills, work related skills, and aggravating behaviors.
5. Independent Living Skills - include transportation, grooming, money, and living environments.

Scoring: Raw scores for each subtest are converted to percentile scores, transferred to Individual Exit Profile (summary of all scores). Instrument uses many forms and recording sheets. Some sections scored on the number of correct responses student makes (except the Social skills section which is a behavior rating scale).

Purpose: This instrument is designed to measure the functional skills of mentally disabled students, and covers measurement of student interests, vocational skills, and social maturity. Can be used for initial assessment or repeated to measure changes in performance over time.

Special Needs Considerations: Designed for mentally disabled persons. Most tasks are administered individually. Can use one of three levels for instruction throughout the test: 1) verbal, 2) verbal plus demonstration, or 3) verbal plus demonstration plus a sample for the student to follow.

Name: San Francisco Vocational Competency Scale (SFVCS)

Authors: Samuel Levine and Freeman Elzey

Vendor: The Psychological Corporation
757 3rd Avenue
New York, New York 10017

Date: 1968

Type: Competency Scale

Standardized Population: Mentally Retarded

Administration: Check list. The trainer can circle the appropriate item in the five-point scale for each item based on observation.

Components:
1. Assessment of an individual's status at a particular time.
2. Assessment of vocational growth and competence in a particular job station.
3. Assessment of training methods.
4. Determiner of job readiness and performance levels.

Scoring: The rater circles the number corresponding to the level which best represents the rater's judgement of the student's observed performance for each item. The total scores can range from 30-138.

Purpose: To assess the competency level of a student-learner in a training situation.

Special Needs Consideration: Can be utilized with other disabilities as an observational inventory in a work-training situation. Language is sexist and needs to be changed.

Name: Self-Concept of Ability as a Worker Scale

Authors: Donald Burke and Donald Sellen

Vendor: Iowa Department of Public Instruction
Special Education Division
Grimes State Office Building
Des Moines, Iowa 50319 (515) 281-3176

Date:

Type: Self-Concept Scale; Interview format.

Item: Scale includes some open-ended items, some multiple choice response items, some self-rating items (5 point scale, 1= low, 5= high), some items which present hypothetical situations (if. . .), some sections (sections 4, 5, 6) ask students to respond as he or she feels their parents/friend/teacher would respond.

Standardized Population: Not Available

Administration: The scale is designed to use an interview technique, required one-to-one administration.

Components: Scale includes six sections:

1. Warm up, general items (assesses degree to which student is able to respond to type of questions asked in other sections, determines whether interview should continue or not)
2. Significant others
3. General
4. Parents
5. Friend
6. Teacher

Scoring: Sections 1 and 2 are not scored. For sections 3-6 a total score is computed for each section. These scores are added to obtain a total score.

Purpose: Designed as an aid for teachers and counselors working with adolescents. Scale indicates a) kinds of classroom activities which should be developed to support students as they enter the world of work, b) types of jobs appropriate for students in relation to each student's perceived abilities, and c) the amount of support a student may need when placed on a job.

Special Needs Considerations:

Name: Social and Prevocational Information Battery (S.P.I.B.)

Authors: Andrew Halpbern, Paul Faffeld, Larry Irvin, and Robert Link

Vendor: CTB/McGraw Hill
Del Monte Research Park
Monterey, California 93940 (408) 649-8400

Date: 1975

Type: Achievement test. Paper-pencil test.

Items: Battery includes mostly true-false items, some multiple choice, some picture selection. Total of 277 items in battery.

Standardized Population: Test tryouts with 1100 Oregon secondary educable mentally disabled students.

Administration: Orally administered with paper-pencil responses required on preprinted response sheets. Can be administered individually or in small group. Appropriate for students in 6th-12th grades who are mildly mentally disabled.

Components: Battery organized around five goal areas, includes nine tests:

Goal 1 - employability: Test #4 - Job Related Behavior
Test #5 - Job Search Skills
Goal 2 - economic self-sufficiency: Test #1 - Purchasing Habits
Test #2 - Budgeting
Test #3 - Banking
Goal 3 - family living: Test #6 - Home Management
Test #7 - Physical Health Care
Goal 4 - personal habits: Test #8 - Hygiene and Grooming
Goal 5 - communication: Test #9 - Functional Signs

Scoring: Scored on percent correct, percentile rank comparisons used; can use preset performance standards for comparison.

Purpose: The battery is designed to assess knowledge of certain skills and competencies believed to be important for community adjustment of mildly mentally disabled students. Results can be used to identify areas for curriculum emphasis, to describe current student performance and to monitor program progress.

Special Needs Considerations: Designed for mildly mentally disabled. Minimal reading requirements (only where reading is critical to the skill being assessed, as in reading want ads).

Name: Social and Prevocational Information Battery, Form T (S.P.I.B.-T)

Authors: Larry Irvin, Andrew Halpbern, and William Reynolds

Vendor: CTB/ McGraw Hill
Del Monte Research Park
Monterey, California 93940

Date: 1979

Type: Achievement. Paper-pencil test.

Items: Battery includes 291 items. Also includes pretest for student introduction to types of items included in actual battery.

Standardized Population: Data based on 314 male mentally disabled residents of community residential facilities and school programs for moderately mentally disabled. Validity and reliability information available.

Administration: Designed for individual administration. Approximate administration time is 10-20 minutes for each test.

Components: Battery includes nine tests. The goals and tests are the same as for the Social & Prevocational Information Battery (SPIB), that is, nine tests in five areas (employability, economic self-sufficiency, family living, personal habits, communication). The nine tests are in these areas:

1. Purchasing habits
2. Budgeting
3. Banking
4. Job-related behavior
5. Job search skills
6. Home management
7. Health care
8. Hygiene and grooming
9. Functional signs

Scoring: Hand scored.

Purpose: Designed for mild and moderately mentally disabled students (TMRs). The instrument can be used for screening, diagnosis, and program evaluation. Purpose is similar to SPIB, but this instrument incorporates changes in administration, response format, and vocabulary appropriate for mild and moderately retarded students.

Special Needs Considerations: Designed for moderately mentally disabled students.

Name: Tests for Everyday Living (T.E.L.)

Authors: Andrew Halpbern, Larry Irvin, and Janet Landman

Vendor: Publishers Test Service
CTB/ McGraw Hill
2500 Garden Road
Monterey, California 93940

Date: 1979

Type: Achievement. Paper-pencil test.

Items: Test includes a total of 245 items. It uses a multiple choice format and written responses.

Standardized Population: Reference group data from 525 junior high and 325 senior high school students. Validity and reliability data available.

Administration: Test is orally administered. Each subtest takes from 20-30 minutes. Can be administered individually or in small group setting (20 or fewer students). Appropriate for junior and senior high students.

Components: The test includes seven subtests which focus on the following areas:

1. Purchasing habits
2. Banking
3. Budgeting
4. Health care
5. Home management
6. Job search skills
7. Job related behavior

Scoring: Hand scored. Raw score is converted to a percent correct score. Separate reading scale score can be computed for items which require reading.

Purpose: This set of tests was designed to assess skills identified to be critical for independent living; a competency-based instrument which provides information on student performance of recurring living-working skills.

Special Needs Considerations: Especially for low-functioning students or learning disabled.

Name: Strong Campbell Interest Inventory Form T325

Authors: Edward K. Strong and David P. Campbell

Vendor: National Computer Systems, Inc.
Interpretive Scoring Systems
P.O. Box 1416
Minneapolis, Minnesota 55440 (800) 328-6116

Date: 1974, revised 1981

Type: Interest inventory. Paper-pencil test.

Items: Inventory includes 325 items; student rates each item as like/indifferent/dislike.

Standardized Population: Instrument based on 162 occupational samples containing 40,197 people. General characteristics of this group: 25-55 years old, in occupation for 3 years or more, report to enjoy work, meet at least minimal standards of occupation (license, certificate, degree, etc.), pursue occupation in a "typical manner". Average sample: 248 people, mean age 39.2, average education 16.6 years, average of 12.2 years of experience.

Reliability test-retest data .81-.91; data on concurrent and predictive validity is available.

Administration: Group administered; estimated time 25-35 minutes for students to complete. Each student uses a test booklet (reading level estimated at approximately a 6th grade level). Students mark computer-scored answer sheets.

Components: Inventory includes seven major parts:

1. Occupations (1-131)
2. School subjects (132-167)
3. Activities (168-218)
4. Amusements (219-257)
5. Types of people (258-281)
6. Preference between two activities (282-311)
7. Your characteristics (312-325)

These components assess student interests in six basic patterns of occupational interest:

1. Realistic
2. Investigate
3. Artistic
4. Social
5. Enterprising
6. Conventional

Scoring: Must be computer scored (estimate 2 days service). Score profile (2 copies) shows student scores on 6 general occupational themes, 23 basic interest scales, 162 occupational scales; also shows special scales score (academic comfort and introversion-extroversion); and administrative index (check on administration and scoring).

Purpose: Designed to assess student interests by comparing student responses with responses of people employed in a variety of occupations. Provides information to help make occupational/curricular choices; provides information for student about self in relation to the working world.

Special Needs Consideration: Spanish edition available (Form T3255). Reading level: 6th grade

Name: Structured Learning Skill Checklist

Authors: A. Goldstein, R. Sprafkin, N. Gershaw, and P. Klein

Vendor: from a book: *Skill Streaming the Adolescent*
Research Press Company
2612 North Mattis Avenue
Champaign, Illinois 61820

Date: 1980

Type: Observation and rating scale.

Items: Checklist includes 50 items. Each describes a specific skill; the rater rates the student's use of the skill (1=never, 5=always). The form includes a space to indicate particular difficulties the student has with any of the skills.

Standardized Population: Not Available

Administration: Recommended that pre-post administration be carried out to assess changes in student skills. The checklist is completed by a teacher or other person who is familiar with the student's behavior. The checklist may also be used for self-administration (self-rating) by students.

Components: Checklist includes skills in three groups:

1. Beginning social skills (eight skills), examples: listening, asking a question, giving a compliment).
2. Advanced social skills (six skills), examples: asking for help, following instructions, convincing others).
3. Skills for dealing with feelings (seven skills), examples: expressing your feelings, dealing with someone else's anger, rewarding yourself).

Scoring: Each item individually rated (1=never good at using the skill, 2=seldom good at using the skill, 3=sometimes good at using the skill, 4=often good at using the skill, 5=always good at using the skill); score is analyzed in terms of differences between pre- and post-ratings. No total score is computed.

Purpose: Designed to assist in evaluating the degree to which students use social, personal, and interpersonal skills; measures student proficiency and deficiency in using skills of these types.

Special Needs Considerations: Reading level may present a problem for some students if the checklist is self-administered.

Name: Supervisors Job Sample Evaluation Form

Author:

Vendor: Department of Public Instruction
Special Education Division
Grimes Office Building
Des Moines, Iowa 50319 (515) 281-3176

Order #: 5100-D12469-7/79

Date: 1979

Type: Rating scale.

Items: Form includes some items which are checked if the item describes the student being evaluated; some items are rated (good, fair, poor, totally unsatisfactory); some items are yes/no. Form includes some space for narrative comments on some items. Total of 82 items.

Standardized Population: Not Available

Administration: Evaluation form is completed by supervisor who observes student and then completes the form; could also be completed by work experience coordinator.

Components: Areas covered on the evaluation form are:

- Learning ability
- Cooperation
- Self-control
- Reaction to supervision
- Degree of supervision required
- Interest
- Industry
- Punctuality
- Attendance on the job
- Personal appearance
- Speed of performance
- Volume of performance
- Quality of performance
- General work habits, attitudes, response
- General Factors

Scoring: Evaluation items are analyzed individually; no composite score is computed.

Purpose: The evaluation form is a tool for describing student performance in a work adjustment experience or in a work experience training program. The form can be readministered periodically or in a pre-post manner to show changes in student performance.

Special Needs Considerations:

Name: Talent Assessment Program (TAP)

Authors:

Vendors: Talent Assessment Inc.
P.O. Box 5087
Jacksonville, Florida 32207
(904) 731-1415

Type: Aptitude measure

Items: Hands on, uses materials and tools of the trades.

Standardized Population: Norms developed around seven basic population groups; reportedly over 6,000 individual test results used in norming. Separate norms reported for: senior high (male/female), junior high (male/female), mixed sex groups of MR adults, unselected employed young adults, male alcoholics. Test-retest reliability reported at .85.

Administration:

Requires 2-3 hours for administration. Nonconsumable, no reading required. Can be used as initial screening device in conjunction with other evaluation procedures. Provides client practice period before actual testing begins. Uses oral instructions. Student performance is timed.

Components: Ten hands-on modules for assessment:
a) three visualization and retention modules
b) three discrimination modules (size, shape, color, tactile)
c) four dexterity modules (fine, gross)

Scoring: Emphasis is on timed scores. Raw scores are converted to percentile scores for each of the work samples. Profile sheet provided. Total weighted score yields a Talent Quotient.

Purpose: This instrument is designed as an objective measure of work-related aptitudes of students, both functional and academic aspects. Provides a profile of vocational aptitudes relative to jobs and training. A battery of dexterity and perceptual tests which assess both fine and gross motor dexterity, visual and tactile discrimination, and student ability to retain details.

Special Needs Considerations: The system requires 1 1/2 days of inservice training for those who will be administering the TAP Training is provided by Talent Associates.

Name: Vocational Education Readiness Test (VERT)

Authors: Edward L. Thomas, Ronald J. Brownlee, Charlene Callaway, and James F. Shill

Vendor: Research and Curriculum Unit
Vocational Technical Education
Mississippi State University, Drawer DX
Columbus, Mississippi 39762

Date: 1978

Type: Work samples - observation - timed

Items: Six areas

Standardized Population: Sixty-four mentally disabled and regular education students from six different school systems enrolled in the 10th grade from urban, suburban, and rural areas.

Administration: Should be administered on a one-to-one basis under simulated working conditions while using standard size tools, materials, etc. The student is then timed at the completion of the task.

Components:
1. Auto mechanics
2. Basic wiring
3. Carpentry
4. Home economics (clothing)
5. Masonry
6. Plumbing

Scoring: Scoring is based on the data taken of regular education and special education students. Hand scored and graphed.

Purpose: To determine the readiness levels of mentally retarded individuals for vocational training programs in regular education.

Special Needs Considerations: The samples used will need to be developed by the evaluator. Diagrams and directions are available in the manual. While the areas are limited to six, others can be developed by the same method and less expensively than commercial work samples.

Name: Vocational Interest Experience and Skill Assessment (VIESA)

Authors:

Vendors: Houghton Mifflin
1900 South Batavia Avenue
Geneva, Illinois 60134 (312) 232-2550

Date: 1975

Type: Interest inventory, skill assessment, written.

Items: Test consists of lists of activities, student marks each to show his or her response (D=dislikes, I=is indifferent, L=likes) for the interest inventory portion. The instrument asks students to identify the type of work they are best at from lists of four examples of types of work in each of four areas (working with people, with data, with things, with ideas). Total of 60 items.

Standardized Population:

Administration: Time for administration is estimated at approximately 45 minutes. Group or individually administered.

Components: Instrument includes Career Log and Guidebook for students, user handbook for teachers. The instrument is organized around 6 job clusters, 25 job families, the clusters are:

1. Business sales & management
2. Business operations
3. Technologies & trades
4. Natural, social, and medical sciences
5. Creative & applied arts
6. Social, health, & personal services

Four major regions in the world of work are used as a basis for the test:

a. working with people
b. working with data
c. working with things
d. working with ideas

Scoring: The VIESA is self-scored by students, using a response sheet with carbon backing. Students add #s to obtain a 1st & 2nd score; these scores are entered on the axes of a graph, the intersection showing the region of the student's primary interest.

Purpose: The VIESA is designed to assess career-related interests, and student experiences and skills. Most appropriate for students in grades 8-12. The VIESA is compatible with Houghton Mifflin's Career Planning Program for grades 8-12.

Special Needs Considerations: The self-scoring is fairly complicated and requires considerable reading and some elementary addition. Parts of test could be modified to eliminate the reading (could use oral individual administration with tester reading items to student).

Name: Vocational Exploration/Special Project (VESEP)

Authors: Not Available

Vendor: Not Available

Date: Not Available

Type: Inventory

Items: Contains 100 picture cards of persons engaged in work activities belonging to 10 different vocational areas.

Standardized Population: Not Available

Components: This instrument assesses student interests in:

1. Agriculture and Natural Resources
2. Automative/Power Services
3. Clothing and Textile Service
4. Construction
5. Distribution
6. Food Preparation and Service
7. Graphic Communication
8. Health
9. Manufacturing
10. Office and Business Education

Scoring: Student's scores are tallied and reflected on a chart which visually shows the comparisons of interests areas.

Purpose: To identify the career interests of students.

Special Needs Considerations: Can be used by students who have reading difficulties.

Name: Vocational Interest and Sophistication Assessment (VISA)

Authors:

Vendor:

Date: Developed in 1960's

Type: Interest inventory.

Items: Inventory includes 75 male pictures, 75 female pictures.

Standardized Population:

Administration: Inventory includes sample items to explain the test taking task to students.

Components: Inventory is composed of three components:

1. sophistication inquiry (seven questions for each job area)
2. explaining the tasks
3. interest inventory (uses pictures)

Seven male and four female job clusters are included in the inventory:

Male job cluster:
1. Farm & grounds
2. Food service
3. Garage
4. Laundry
5. Light industrial
6. Light maintenance
7. Material handling

Female job clusters:
1. Business-clerical
2. Food service
3. Housekeeping
4. Laundry

Scoring:

Purpose: The inventory is designed to assess student's vocational interests and knowledge of job conditions. VISA is designed for use with mentally retarded students, and uses a reading-free format.

Special Needs Considerations: Reading-free format. Instrument needs to be updated so clusters are utilized with males and females.

Name: Work Adjustment Rating Form (WARF)

Authors: James A. Bitter and D. J. Bolanovich

Vendor: James A. Bitter
School of Special Education and Rehabilitation
University of Northern Colorado
Greeley, Colorado 80639

Date: 1969

Type: Checklist which is to be utilized by an observer of the student's work behavior.

Items: Contains forty items belonging to eight subscales.

Standardized Population: Not Available

Administration: The forty questions are to be answered by the trainer (instructor) who has observed the student in a training or work experience situation.

Components:
1. Amount of supervision required
2. Realism of job goals
3. Teamwork
4. Acceptance of rules and authority
5. Work tolerance
6. Perseverence in work
7. Extent the student-learner seeks assistance
8. Importance attached to job training

Scoring: Yields a numerical score which is the sum of all positive responses. Scoring key is attached to the test.

Purpose: Provided an objective measure of "job readiness" of the student.

Special Needs Considerations: The rating form was developed originally to determine the work readiness levels of disabled adults seeking entry into sheltered workshops. The rating form, however, can be used with other disabled student learners being vocationally trained in the vocational co-op method. Language needs to be changed to eliminate sexist terminology before using.

Name: Wide Range Employment Sample Test (WREST)

Author: Joseph Jastak, Ph.D.

Vendor: Guidance Associates of Delaware, Inc.
1526 Gilpin Avenue
Wilmington, Delaware 19806 (302) 652-4990

Date: 1973

Type: Work samples.

Items: Includes hands-on items which are timed. The test does provide opportunities for students to practice items prior to being timed.

Standardized Population: Data available for both handicapped and nonhandicapped. Test norms based on production time and error norms of 300 Opportunity Center Inc. workshop individuals (mentally and physically handicapped), and 100 persons who were employed.

Administration: Can be administered individually or in small groups of 3-6 students. Estimated time is 1 1/2 hours for individual administration, 2 hours for group administration. All items are timed (range from 1 1/2 to 15 minutes each).

Components: The test includes ten work samples, encompassing both manual and clerical tasks:

1. Folding, pasting, labeling, stuffing
2. Stapling
3. Bottle packaging
4. Rice measuring
5. Screw assembling
6. Tag stringing
7. Swatch pasting
8. Collating
9. Color and shade matching
10. Pattern matching

Scoring: Hand scored, based on time and errors. Score results reported in stanine score for each subtest. The ten subtest scores are added to yield a total performance score.

Purpose: This test was developed as an observation system to measure production of work (related to time and movement) of mildly and moderately mentally disabled individuals ages 16-35. The test can be readministered periodically to assess changes in performance. Measures perceptual and dexterity abilities.

Special Needs Considerations:

Name:	W.R.I.O.T. Wide Range Interest-Opinion Test
Authors:	Joseph F. Jastak, Ph.D. and Sarah Jastak, Ph.D.
Vendor:	Jastak Associates, Inc. 1526 Gilpin Avenue Wilmington Delaware 19806
Date:	1979 Edition
Type:	Paper-pencil test; pictorial interest test that requires no reading. Is culturally and sexually unbiased. Picture presentation reduces confusion of mental images and multiple meanings.
Items:	Contains a reusable booklet containing 150 sets of 3 pictures each from which likes and dislikes are picked by forced choice and recorded by the test taker on preprinted answer sheet.
Standardized Population:	Normed on seven age groups from five through adulthood and separately for males and females.
Administration:	Can be administered individually or in groups depending on disability, mental ability, or age. Thirty-five mm filmstrip pictures are available which permits individual use with a mechanical viewer or large group use with projector.
Components:	Measures strength of 18 vocational activity interest areas and 8 general attitude clusters. Occupational range is from unskilled labor to the highest levels of technical, managerial, and professional training. A list of job titles for each of 18 interest clusters. Can be given to the subject to enhance occupational exploration and reduce counselor preparation time.
Scoring:	Answer sheet can be handscored by (1) plastic stencils or (2) scored and profiled by Interpretive Scoring Services - Minneapolis, Minn. Contains self-instruction report form for graphic portrayal of results. Report form can be given to the client for vocational counseling purposes.
Purpose:	Aids in vocational/career planning, counseling and decision making. Gives level of self-projected ability, aspiration level, and social conformity. Assists in selection/assignment of prospective employees and trainees. Help coordinate instruction/therapy plans with interest/attitude patterns. Measures motivation by likes and/or dislikes.
Special Needs Considerations:	Because reading ability is not required, WRIOT can be used with the educationally and culturally disadvantaged, the learning disabled, the mentally disabled, and the deaf. Picture titles can be read to the blind.

Name: Work Interest Inventory, from the *Janus Job Planner*

Author:

Vendor: Janus Book Publisher
25825 Mission Boulevard
Hayward, California 94544

Date:

Type: Interest inventory. Written. Rating Scale (scale = 0-10, 0=no, 10=yes, 5=not sure).

Items:

Standardized Population: Not Available

Administration: Self-administered, student reads items, writes response on preprinted rating scale forms.

Components:

1. Clerical
2. Sales
3. Service
4. Physical
5. Driving/operating
6. Mechanical/repairing
7. Caring/helping
8. Creative

Scoring: Ratings totaled by category, scores transferred to bar graph for visual analysis.

Purpose: To identify the three kinds of work a student is most interested in.

Special Needs Consideration: Requires reading, although it could be adapted to an oral presentation.

Name: You and Your Abilities Inventory

Author: Byrne

Vendor: Department of Public Instruction
Special Education Division
Grimes Office Building
Des Moines, Iowa 50319 (515) 281-3176

Date:

Type: Self-evaluation; interest inventory; paper-pencil test.

Items: Inventory includes a total of 64 items in a yes/no checklist format; from 5-12 questions are included for each of nine major topic areas.

Standardized Population: Not Available

Administration: Self-administered; after introduction from evaluator, student reads items and checks yes/no. Can be administered individually or in a group setting.

Components: The inventory includes items in nine major topic areas:

1. General
2. Science
3. General creative ability
4. Artistic talents
5. Dramatic talent
6. Musical talent
7. Persuasion ability
8. Physical skills
9. Manual dexterity

Scoring: After the student has completed the inventory, the student might share what he/she has learned about him/herself and their abilities; either in small groups or with a counselor, instructor, or work experience coordinator. No composite score is computed.

Purpose: The inventory is designed to help students discover information about themselves, become aware of different abilities, and practice self-evaluation.

Special Needs Considerations: Could be modified for nonreaders (evaluator read questions, student responds orally).

TERMS

Ability refers to a more general trait of the individual which has been inferred from certain response consistencies . . . on certain kinds of tasks.

Achievement Tests assess what the student has learned up to the date of the test. It evaluates post-learning on the assumption that the student received instruction in the area being tested.

Activity Program (Activity Center) is a program of purposeful and constructive activities for the severely handicapped individual who as yet is unable to engage in remunerative employment in either the competitive labor market or in sheltered employment or a work activity program. This program typically involves craft-oriented activities, personal adjustment services, and recreation. Each person should be re-evaluated periodically to determine if this program is meeting the client needs.

Advisory Council is a group of persons, usually from outside the field of education, selected because of their knowledge and expertise in certain areas to advise educators regarding career and vocational programming.

Agri-Business Cooperative Education (ACE) refers to preparation for a vocation or occupation in agriculture and/or agriculture-related occupations.

Appentice is a worker at least 16 years of age, except where a higher minimum age is otherwise fixed by law, who is employed to learn a skilled trade as defined by criteria for apprenticeable occupations under standards of apprenticeship fulfilling the requirements and standards set by the Secretary of Labor.

Federal Register, 2/18/77, Part II
Apprenticeship Programs

A worker who learns, according to written or oral contractual agreement, a recognized skilled craft or trade requiring one or more years of on-the-job training through job experience supplemented by related instruction, prior to being considered a qualified, skilled worker.

Dictionary of Occupational Title, 4th Edition

Apprenticeable Occupation is a skilled trade which possesses all of the following characteristics: (a) it is customarily learned in a practical way through a structured, systematic program of on-the-job supervised training; (b) it is clearly identified and commonly recognized throughout an industry; (c) it involves manual, mechanical, or technical skills and knowledge which requires a minimum of two or more hours of on-the-job experience; (d) it requires related instruction to supplement the on-the-job training.

Federal Register, Vol. 24 #34, 2/18/77
Labor Standards for Registration
Apprenticeship Programs

Apprenticeship refers to an organized system for providing individuals with the manipulative skills and technical or theoretical knowledge needed for complete performance in skilled occupations. The training usually combines on-the-job work experience with classroom instruction of not less than 2,000 hours. The minimum terms and conditions of apprenticeship are regulated by state and local statutes or agreements.

Apprentice Indenture is a written contract or agreement among parent or guardian, apprentice, and employer concerning the terms of employment and training experiences of the apprentice during his learning period.

Aptitude Tests measure characteristics that are supposed to be predictive of future performance. This means that the student's performance on an aptitude test indicates his or her potential in a given area for the future. Some students have an aptitude for music, some for art, and some for mechanical activities. An intelligence test in one form of aptitude test because it purports to predict future behavior, particularly academic accomplishment. Both aptitude tests and achievement tests may be specific or general.

Avocation is an activity engaged in usually for enjoyment, in addition to one's regular work or profession; hobby. In some instances, a person's avocation also becomes a means to supplement or be an individual's economic livelihood.

Bulletin Boards serve to focus attention, stimulate thinking, and display student activities. A career bulletin board should reflect the career theme or career value.

Career is the totality of work one does in his or her lifetime.

Career Development refers to a developmental process, extending over almost the entire life span, through which persons develop the capacity for and engage in work as part of their total life style. As a process, it is typically thought of in the developmental stages of: career awareness, career exploration, career decision making, career planning and preparation, career establishment, career maintenance, and career decline.

Career Education refer to all of the educational activities and experiences through which individuals learn about themselves and relationships to life styles and to the world of work. It is the program under which the school meets its responsibility to assist individual's career development. Preparation for preferred work, leisure, aesthetic, educational, citizenship, and family roles is emphasized. Career education encourages the examination of factors affecting individual contributions to society and facilitates the selection of a realistic and satisfying life style. In doing so, career education is life role preparation permeating all student experiences in the home, school, and community.

Career Education Models is an organized school program designed to facilitate the career development of students. It integrates the general, academic, and vocational curricula and bridges the gap between the school and the community. It focuses upon the career development of students in grades K-12 and may continue through the adult years. In addition to providing students job information and skill development, comprehensive career education helps students to develop attitudes about their personal, psychological, social, and economic significance of work.

Career Education Needs Information System (CENIS) is a project of the Career Education Division which collects and provides to schools labor demand, labor supply, student interest, and student follow-up information.

Career Ladders is a mechanism that facilitates upward mobility in an occupational area. The basis of this mobility is generally the ability to perform at a higher level and usually is attained through either formal or informal learning.

Career Lattice represents an extension of the career ladder concept. It adds a horizontal and diagonal dimension to career mobility. "Lattice" facilitates not only vertical movement to another occupational area, but also horizontal and diagonal movement, permitting alternative directions; all such movement is based on some common areas of knowledge and skills.

Clinical Prescriptive Teaching is based on the philosophy that each student learns differently. Thus, we need to plan for the individual student. Every student has his/her own unique set of needs. It is, therefore, necessary that we have a precise knowledge of each students deficits. General achievement test scores, informal evaluations, or informal assessments used solely as a guide for planning a student program are open to question. A systematic scheme of observation and testing is necessary. Each tool differs in degree and depth. The objectives for prescriptive teaching are: (1) to provide each student with instruction according to his or her development level; (2) to provide each student with the opportunity to learn according to his or her optimum mode; (3) to assist each student in learning skills sequentially, with data recorded daily for future feedback; (4) to allow each student to begin at a level where he or she can succeed and progress at a rate which will not be frustrating; (5) to employ the use of appropriate instructional materials and media; and (6) to facilitate "access to success" which will promote a student's self-confidence and self-concept.

Compensation includes wages and salaries and benefits of employees plus employers' contributions for Social Security and private benefit plans.

Community Resources are the facilities, agencies, businesses, and persons outside the schools in the community that may be, or are, used by the schools for their educative values, (e.g., theaters; parks; playgrounds; libraries; art galleries; museums; zoos; planetariums; botanical gardens; universities; churches; scouts and other youth groups; service clubs; social-service agencies; industries and individuals, including representatives of various occupational groups, cultural groups, and civic organizations).

Handbook VI, X 07 52.80

Community Resources are resources found in the community that have applicability to career education programs.

Continuing Education is instruction designed to meet the educational needs and interests of adults and youth beyond the age of compulsary school attendance, who have either completed or interrupted their formal education. This may be provided by a school system, college, or other agency or institution (including a technical institute or area vocational school) through activities and media such as formal classes, correspondence study, radio, television, lectures, concerts, demonstration and counseling.

Cooperative Health Occupation (CHO) is a course in planned experience designed to impart knowledge and develop understanding and skills required to support the health profession.

Cooperative Vocational Education is an organized method of preparatory instruction in an occupational field designed to provide, through a written cooperative agreement between the school and employer, supervised on-the-job training, related vocational instruction, required vocation instruction, and required academic courses by alternation of study in school with planned educational experience on a job.

Coordination involves promotion, placement, observation, conference, and evaluation. It includes holding conferences to determine student training needs, assisting with the development of a training plan, preparing course outlines, and selecting instructional materials related to occupational experience. This is done by the teacher - coordinator on school release time.

Criterion-Reference Testing is any test for which a criterion score is specified without reference to the distribution of scores of a group of examinees.

CRTS are content-specific measures that can be useful for the stratification of learning groups on a day-to-day basis if need be. Criterion-referenced testing evaluates the instruction the student has received on specific, relevant skill (task).

Test experts generally agree that the chief difference between criterion-referenced tests and norm-referenced tests is that criterion-referenced tests are used to determine what a student knows rather than how he/she ranks on a scale with other students. Persons who favor criterion-referenced tests list a number of advantages.

- They are good ways to assess desired achievement if objectives have been clearly stated.
- They can report a larger amount of specific and detailed information on pupil competency than can other more expensive instruments at a given cost.
- They emphasize mastery of specifics by pupils, although some arbitrariness can exist in the definition of mastery and in choice of specifics to master.
- They are meaningful measures of achievement in that they establish a common standard for all.
- They allow the freedom for the criteria in one locale to be different from the criteria in another.
- They have the obvious advantage of providing direct instructional feedback.

Once one accepts the developmental approach theory, the question or identification resolves itself. The identification process involves the following steps: (1) determining the specific objectives or goals of the discipline involved; (2) designing valid and reliable instruments to measure the stated goals; (3) using the constructed instruments to pretest all subjects; (4) establishing norms and cut-off scores.

Developmental Approach assumes that all students progress in a developmental pattern. Some will progress much faster than others; but with continued and supportive instruction, progress continues to be made. All students will reach what may be observed as a plateau, but in the normal course of things, will continue to grow and continue to develop physically, mentally, and emotionally.

Developmental Checklists are screening devices that can be used to determine the presence or absence of prerequisite critical skills (readiness) for a task level learning.

Dictionary of Occupational Titles (DOT) is a classification system identifying jobs by the nature of the work performed and the demands of such work activity on the workers. The DOT groups jobs into "occupations" based on their similarities and defines the structure and content of the occupation, using a nine-digit numerical coding system.

The first three digits describe the levels at which the workers function in the task performed; the final three digits indicate the alphabetical order of titles within six-digit code groups.

Diploma (High School) is a formal document certifying the successful completion of a prescribed secondary school program of study. In some states or communities, high school diplomas are differentiated by type such as academic diploma, general, or vocational diploma.

Disadvantaged indicate persons who have academic, socioeconomic, cultural, or other handicaps that prevent them from succeeding in regular vocational education or consumer and homemaking programs designed for persons without such handicaps and who for that reason require specially designed educational programs or related services.

Distributive Education (DE) is a vocational education program for those preparing for or engaging in the distribution of goods and services to the consumer—including all retail, wholesale, and service occupations.

Domain is the set of elements to which a logical variable is limited.

Education is the totality of experiences through which one learns.

Entry Level is the lowest position in any promotional line.

Entry Level Occupations are jobs or occupations for which employers hire workers either with little or no previous work experience or with relatively minimum training or education. Some occupations require a greater amount of education or training for specific entry level classification such as: "apprenticeship" or "internship".

Exploration is a sequence of activities providing exposure to a broad range of jobs in all major occupational clusters using simulation or actual work experiences in several clusters with investigation of a single cluster or subcluster in greater depth based on interest level. It is voluntary on the part of the employer and student (school credit but no pay). Careful consideration of Federal Wage/Hour Regulations must be maintained.

Field Experience is a planned activity by one or more students who observe or participate in some organization or establishment outside the classroom for the purpose of seeking first-hand information about its operation or of acquiring skills, knowledge, and experiences not possible in the classroom.

Guidance is a set of services devised and operated for purposes of assisting persons in the career development process. Career guidance includes: (1) services designed to provide the individual with a more positive self-concept; (2) services designed to increase the individual's self-understanding; (3) services designed to increase the individual's understanding of education and occupational opportunities available to him or her; (4) services designed to assist the individual in the career decision-making process; and (5) services designed to help the individuals implement decisions they have made.

Habilitation is the process of providing services to disabled or disadvantaged clients in order to prepare them for employment. The use of the term habilitation rather than rehabilitation implies that the client was not in the labor force prior to the onset of the debilitating condition.

Handicapped are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who by reason of their handicapping condition cannot succeed in a regular vocational or consumer homemaking program designed for persons without such handicaps, and who for that reason require special education assistance or a modified vocational or consumer and homemaking education program. (P.L. 94-482)

Hands on Activities are activities which entail actually performing those tasks which a worker would do in a certain occupation. These activities may be conducted in a simulated situation. Hands-on activities give the students an opportunity to associate skills necessary to perform a certain job with their own interests, talents, and capabilities (e.g., Project Discovery, brief exploration site visits).

Home Economics Related Occupations (HERO) is a vocational educational program to prepare persons for employment in an occupation that utilizes the knowledge and skills of home economics.

Industrial Cooperative Training (ICT) is instruction planned to develop basic manipulative skills, safety practices, judgments, technical knowledge, and re-entry into occupational information for the purpose of fitting persons for initial employment in industrial occupations.

Infusion refers to the process of integrating career development goals based on student career development competency needs with current subject matter goals and content. This curriculum development concept is used to assure the delivery of an integrated career education program.

Inservice Education is a process for the professional improvement or continuing education of all educational staff members. It is designed to help staff improve their professional competencies and may focus on one or all three of the learning domains. The outcomes sought are changed staff behaviors which result in improved student outcomes and behaviors.

Interdisciplinary Cooperative Education (ICE) spans all vocational program areas thorugh an interdisciplinary approach to training for employment. This approach is especially valuable in enriching the small school's vocational program where a traditional cooperative program of clustered occupations cannot be identified because of varied student interests and diverse training stations.

Interest Inventory assesses the likes and dislikes of a student in order to assist in educational or vocational planning. An interest inventory does not measure aptitude. Here, common sense is right because it dictates that an individual can be highly interested in a particular vocation but not have the aptitude necessary to succeed in it. Vocational planning which equates interest with aptitude may court disaster.

Internship The internship program is a nonpaid experience for secondary students in a job area of their choice. The amount of time may vary. It provides opportunities to explore the day-to-day, hour-by-hour duties and responsibilities of a job. It provides experiences to acquire knowledge of other jobs related job choice and to interact with a successful role model as well as to participate in hands-on activities.

Interview is a tool whereby a class or individual questions workers about their job. It is an excellent means of research, listening, inquiry, and communicating. Students participate in:

1. Locating pre-interview information
2. Formulating questions
3. Conducting the interview
4. Follow-up activities

Inventories assist school personnel and the student to begin continuing assessing individual career growth. While there are many commercially developed inventories available, there are just as many others being developed for specific reasons by school personnel. Inventories provide a great diversity of use in *on- and off-campus* situations.

Self inventories can be used to help students assess their previous experiences and their knowledge and levels of interest in given career clusters or fields. School personnel may want to begin a specific career experience with such an inventory.

1. LID

   a. Like
   b. Indifferent
   c. Dislike

   (example: Strong Vocational Interest Blank)

2. TRIAD (Student given three statements for a forced choice)

   a. One liked best
   b. One liked least

   (example: Kuder, Minnesota Vocational Interest Inventory)

As the students gain knowledge and skills in a particular area, it will be useful to staff and to the student to view their progress in relation to the level of knowledge and skills required. Self-assessment inventories can be used for this purpose without the threat of being graded.

If the student's program is designed so that specific job-related skills are to be learned, then the skill history form is a self-assessment technique similar to the inventory checklist. It provides a means for the student to assess previously learned skills in specific career areas. The skill history form also can be used in conjunction with the self-inventory checklist.

Job refers to a group of positions in a single plan, business establishment, educational institution, or other organization which are identical with respect to their major or significant tasks and sufficiently alike in other ways to justify their being covered in a single job analysis.

Job Analysis is a procedure for analyzing what is required to perform a specific job. The ability to conduct job analysis is an essential competency for vocational educator co-op instructors, work-experience instructors (Sp.Ed.), and special education teacher coordinators.

Job Families is groupings of jobs which have in common varying degrees of the following elements: work done; tools used; mechanics or other work aids used; materials worked with; workers' characteristics; and need for successful performance of a job.

Job Placement is a procedure for enabling any person to become employed. Effective job placement requires knowledge of the job requirements, job market, and person's strengths and limitations.

Job Samples are work samples used to evaluate potential for specific jobs within the community. Job samples may be the total, actual job, the most important tasks involved in the actual job, or a simulation of the actual job.

Journeyman is a worker who has satisfactorily completed an apprenticeship and is classified as a skilled worker in a specific trade.

Laboratory refers to instructional activities and experiences designed to provide opportunities for individuals to develop marketable competencies and skills for entry or re-entry into an occupation or occupational cluster.

Learning Centers are special areas designed for individual and small group learning activities. Learning centers can be used in a variety of ways depending upon the teacher's purpose.

1. Total learning environment
2. Remedial work
3. Drill
4. Interest activities
5. Enrichment activities
6. Career assessment and simulated exploration

A career theme can provide an excellent motivational theme for each of these purposes (e.g., interest centers of tools can provide some hands-on experience for students).

Leisure consists of activities, other than sleeping, in which one engages when not performing in his or her vocation. Thus, "leisure" holds possibilities for both "work" and for "play".

Low Income Individuals are persons whose annual income falls below the Poverty Level Income Levels established and published by the United States Department of Labor. This income level listing is updated annually, and assists in identifying those individuals or families considered to be economically disadvantaged.

Multi-Occupations are preparatory programs utilizing the cooperative method in which students with a number of different career goals participate in the same related instruction class and are provided work experience under the same coordinator.

Needs Assessment is a survey of the target group (school staff, community) that results in an appraisal of attitudes, skills, awareness, resource, etc., and suggests a focus for inservice education.

Non-Referenced Tests are tests which gives the teacher information that compares an individual performance with that of others. Scores on a test or set of tasks are related (referenced) to a table of norms.

Occupation refers a group of similar jobs found in several establishments; a group of jobs which elicits similar classes of vocational behavior in terms of tasks performed, work behavior, or functions of the worker.

Occupational Cluster is a grouping of occupations having similar or related characteristics (e.g., stenographers, office clerks, and accountants are in the business and office clusters).

Occupational Education is instructional activities and experiences which prepare an individual for a specific job or cluster of jobs to work for pay.

Occupational Work Evaluation is the appraisal of the individual's capacity including patterns of work behavior, ability to acquire occupational skills, and the selection of appropriate vocational goals. This definition includes "the utilization of work" simulated or real, to assess the individual's capacity to perform in a work environment; work experiences, within the facility or in conjunction with outside industry, to assist the individual to acquire knowledge, develop skills, and/or assess readiness for job placement "self-appraisal".

Office Education (OE) is an instructional program to prepare students for office careers involving initial, refresher, and upgraded education leading to employability and advancement in office occupations.

On-the-Job Training is the planned learning experiences that are received by cooperative students while employed on a part-time basis in a business, industry, or sheltered employment situation.

Outside Resources are the people, places, and things outside of school used to enrich the curriculum.

Position refers to a group of tasks performed by one person.

Professional is a person engaged in a specific activity as a source of livelihood; one who has an assured competence in a particular field or occupation.

Rationale is underlying reason(s), explanation . . . for a program or action.

Related Instruction is classroom and laboratory subject matter designed to increase the student's knowledge, understanding, and ability to solve problems concerned with a particular occupation and to enable her/him to become an employable individual.

Research about the world of work can be conducted by every child in every grade level. The amount and mode of research depends upon the individual student.

Research can be accomplished in many ways: writing reports; interviewing; viewing films, filmstrips, and commercials; listening to records and tapes; and reading books, charts, letters, newspapers, magazines, commercials, etc.

Screening is the preliminary process of evaluation to determine appropriateness of available service. (Examples are group tests, class inventories, checklists, etc.)

Shadowing provides the student with an opportunity in a structured, planned situation to spend time observing a model or models carrying out their daily duties on the job. It presents work in a real-life setting. Skills and qualifications can be analyzed and interest and talent examined. (The student generally does not get involved in the activity but is an observer and recorder.)

Sheltered Workshop provides transitional and/or long-term employment in a controlled and protected working environment for those who are unable either to compete or to function in the open job market due to their handicap. Some sheltered workshops also provide vocational evaluation and work adjustment services.

Sheltered Workshop Employment (Sheltered Workshop) involves remunerative work for persons who cannot successfully obtain or maintain competitive employment. The sheltered workshop providing this service shall have a current sheltered workshop certificate and individual certificates as may be appropriate. A definite feature of this service is that individuals are usually involved in sheltered employment for a longer period of time than is normally considered for work evaluation or work adjustment programming. The actual length of time, however, can vary from a period of months to a period of many years. Each person shall be re-evaluated periodically (at least once a year) to determine if the current program is meeting client needs.

Simulated Tasks are work tasks which are invented or devised to answer specific work evaluation questions.

Simulated Work is a devised situation to ascertain how an individual or group of individuals react to specified work stimuli or conditions.

Simulated Work Sample is a mock-up or a close simulation of an actual industrial operation, not different in its essentials from the kind of work a potential worker would be required to perform on the ordinary job.

Situational Assessment Process is a systematic procedure for observing, recording, and interpreting work behavior. The effectiveness of this approach depends almost entirely upn the sensitivity and skill level of the observer.

Skill refers to the level of proficiency on a specific task or limited group of tasks. The level of performance a student can attain on specific or varied tasks may depend on his/her ability or manual dexterity, motor coordination, or educators ability to accommodate the student's learning of a task(s) in an alternative manner.

Special Needs Offerings are supportive, modified, or special activities designed to develop the abilities of disadvantaged and handicapped students to their potential and enable them to participate successfully in a regular vocational program of their choice.

State Occupational Information Coordinating Committee (SOICC) is a committee comprised of representatives of the State Board, State Manpower Services Council, and Vocational Rehabilitation established to implement an occupational information system for use in planning for and operation of programs under the Vocational Education Act and the Comprehensive Employment Training Act.

Strategies are the teaching skills or methods of instruction that have been identified as necessary to successfully teach an instructional unit and actualize programs of staff development.

System is an array of components designed to achieve an objective according to a plan.

Target Groups are specifically identified audiences in the community whose special interests are closely related to or affected by specific aspects of career education.

Task is a distinct major activity, made up of one or more elements, which constitutes one of the logical and necessary steps in the work performed by an individual.

Task Analysis is a method that is used to provide further diagnostic information; it is an approach to evaluation designed to lead to appropriate teaching. Two ways to think about task analysis are: (1) the modality - processing approach and (2) the skills sequence approach. The first analyzes the student, while the second analyzes the content to be learned.

Theory summarizes and generalizes a body of information; facilitates understanding and postulates a complex phenomena; serves a predictive function by helping one to estimate what will happen under certain circumstances; and stimulates further research and fact finding.

Training means to make proficient with specialized instruction and practice.

Unions

Trade & Craft Union is a union organized on the basis of the same type of work performed by the members (e.g., electricians' union, carpenters' union).

Industrial Union is a union that takes into its membership all the workers for a given industry. Examples are United Mine Workers of America and the United Automobile Workers.

Independent (Company) Union is a union not affiliated with a federation of unions.

Open Shop refers to a business firm in which union and nonunion people may work in which the employer can hire employees with no regard to union membership.

Closed Shop refers to a business firm in which all employees hired must be union members at the time of hiring and so continue during employment.

Unit of Credit (257.3.5(10) is defined as the amount of credit earned by a pupil who successfully completes a course of related components or partial units that is either pursued for 36 weeks for the required number of minutes per week or as an equated requirement as a part of an innovative program filed as prescribed in 3.1(6). A fractional unit of credit shall be awarded in a manner consistent with this standard. In order for a course to yield one credit, it must either be pursued for 36 weeks for at least 200 minutes per week or for the equivalent of 120 hours of instruction. The board may award credit on a performance basis through the administration of an examination, provided that said examination covers the content ordinarily included in a regular course in the subject involved.

Unit Teaching involves integrating material from several content domains and using it in teaching about a given theme. The organizing focus is the theme. You select instructional objectives from multiple content domains. You do not teach topics separately. Instead, when you specify content and behavior for your instructional objectives, you select elements in several content domains which pertain to the guiding theme of the unit. A unit approach is useful to the application phase of learning.

Vocation is one primary work role, occupation, or profession that one is specifically suited or qualified for at any given point in time. Vocations include paid employment, but they also extend to unpaid work roles. For example, we can speak of the "vocation" of the student, the full-time volunteer worker, or the full-time homemaker just as easily as we can speak about the "vocation" of the plumber, the physician, or the engineer.

Vocational means pertaining to, providing, or undergoing training in a special skill to be pursued as a trade.

Vocational Education refers to organized educational programs which are directly related to the preparation of individuals with employability and job-specified skills required for paid or unpaid employment; said skills development being provided for by educational program where the requirement of a baccalaureate degree is not necessary for initial employment and/or further specialized training. This means instruction related to the occupation(s) for which the students are preparing, or instruction for students to benefit from such preparation, and the acquisition, maintenance, and repair of instructional supplies, teaching aids, and equipment.

Vocational Program refers to the offerings, supervised out-of-class activities, and the arrangement or sequence of subjects and activities through which students prepare for a work role.

Vocational School are schools, especially on a secondary level or postsecondary level, that train persons with special aptitudes for qualification in specific trades or occupations; such as mechanic, stenographer, etc.

Vocational Student (Youth) Organizations are organizations for students enrolled in or who have been enrolled in vocational education programs, with national, state and local units, the activities of which are an integral part of the vocational instructional program.

Work is conscious effort, other than that involved in activities whose primary purpose is either coping or relaxation, aimed at producing benefits for one's self and/or for one's self and others.

Work Activity Program (Work Activity Center) is a program of work activity which may involve employment and/or training. Remunerative work is one component of a Work Activity Program. This program can be a unit within a sheltered workshop setting, or it can be the entire program of an agency. Typically, a person assigned to a Work Activity Program will have a productivity capacity significantly below the sheltered workshop level.

Work Adjustment is an individualized, structured, and planned, closely supervised, remedial work experience, designed to promote the acquisition of good work habits, to increase physical and emotional tolerance for work activity and interpersonal relationships, and to modify attitudes and behavior which inhibit the satisfactory performance of work.

Work Adjustment Program involves the provision of real work experiences and supportive serivces to assist the individual to become acceptable in a work environment through the development of appropriate patterns of behavior. The areas covered in a work adjustment program are:

1. Develop good work practices
    a. Regular attendance
    b. Punctuality
    c. Safety habits
    d. Accuracy
    e. Work pace
2. Develop physical capacity and endurance
3. Facilitate motivation to:
    a. Do productive work
    b. Accept supervision
    c. Relate properly to co-workers
    d. Be self-reliant
4. Help the individual to develop and enhance feelings of self-worth
5. Provide ancillary skills which affect the individual's job
    a. Orientation to a job market
    b. Locating appropriate jobs
    c. Job application and interviews
    d. Hygiene and appropriate dress
    e. Transportation
    f. Money mangement

Work Experience is direct participation in work activities.

Work Sample is a well-defined work activity involving tasks, materials, and tools which are identical or similar to those in an actual job or cluster of jobs. It is used to assess an individual's vocational aptitude, worker characteristics, and vocational interests (examples: Project Discovery, Valpar, WREST, Singer/Graflex Vocational Evaluation System, and JEVS).

1. Indigenuous Work Samples - represent the essential factors of an occupation as it presently exists in one community.
2. Job Samples - in their entirety are replicated directly from industry and include the equipment, tools, raw materials, exact procedures, and work standards of the job.
3. Simulated Work Samples - attempt to replicate a segment of the essential work-related factors and tools of a job as it is performed in business or industry.
4. Single Trait Work Samples - assess a single worker trait or characteristics. It may have relevance to a specific job or many jobs, but it is intended to assess a single isolated factor.
5. Cluster Trait Work Sample - a single work sample developed to assess a group of worker traits. Contains a number of traits inherent in a job or a variety of jobs. Based upon an analysis of an occupational grouping and the traits necessary for successful performance therein, it is intended to assess the client's potential to perform various jobs.

Work Sample Normed in Industrial Setting is derived from the aggregate work sample scores of a specified employed population.

Work Sample Norms are specified standards that enable an evaluator to compare a client's performance on a work sample with meaningful criteria, (e.g., industrial workers, performance for workshop, local or national standards).

Work Sample Standards are the rules for the constructing, administering, scoring, and interpreting of work samples in accordance with some established model.

Work Study is part-time employment in a public nonprofit organization for youths who need the earnings from such employment to enter and continue vocational training.

Work Trait is the requirements made of the worker in terms of aptitudes, general educational development, vocational preparation, physical demands, and personal traits. These are reflected in training time, aptitudes, temperaments, interest, physical demands, and environmental conditions.

APPENDIX B

Resources

Assessing Experiential Learning in Career Education
Research and Developmental Series No. 165
The National Center for Research in Vocational Education
Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Awarding College Credit for Non-College Learning
Peter Myer
(Publication data and publisher unknown)

Career Education for the Handicapped Child in the Elementary Classroom
Gary M. Clark, University of Kansas
Love Publishing Company
Denver, 1979

Career Information in Counseling and Teaching, 3rd Edition
Lee E. Isaacson, Purdue University
Allyn and Bacon, Inc.
Boston, 1977

Hun, T., *Vocational Assessment Through Performance Sampling: Meeting the IEP Requirement*. Anaheim, California: Presentation at the American Vocational Convention, December 1, 1979

Iowa Western Community College Vocational Assessment Center Assessment Manual, Vocational Assessment Center, Council Bluffs, Iowa 51501

Jobs for the Disabled, Sar A. Levitan and Robert Taggert, The John Hopkins University Press, 1977.

Lisher, D., 916 SERVE Center Vocational Assessment Model. White Bear Lake, Minnesota: 916 Area Vo-Tech Institute, n.d.

Student Evaluation in Vocational and Technical Education
(Information Series 97)
The National Center for Research in Vocational Education,
Ohio State University
1960 Kenny Road
Columbus, Ohio 43210